

BLOCK

5

REGIONAL APPROACHES TO GEOGRAPHY OF INDIA

UNIT 16

PHYSIOGRAPHIC APPROACH

UNIT 17

SOCIO-CULTURAL APPROACH

UNIT 18

ECONOMIC APPROACH

GLOSSARY

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BLOCK 5: REGIONAL APPROACHES TO GEOGRAPHY OF INDIA

So far, in the first four blocks of this course, you have learnt that Geography is a multi-disciplinary branch of knowledge that studies diverse aspects of both physical and human features. In doing so, geographers take into consideration certain approaches as devised by various scholars on the basis of homogeneity of certain physical and human features. Many scholars tried to classify the country into various physiographic, socio-cultural and economic regions on the basis of certain definite factors. These may encompass historical, regional, cultural, and demographic factors etc. The diverse kinds of regions are identified and then studied at diverse scale ranging from macro, meso and micro levels. The *raison d'être* to identify and divide the regions may include a focus on the inherent peculiarities, opportunities and constraints of diverse kinds of geographical regions. Such approaches may be helpful to highlight the man-environment relationships to be seen in terms of physical, socio-cultural, economic, political, and contemporary development related issues.

In this last Block 5, we will introduce you to the **regional approaches to geography of India** with particular focus on physiographic approach, socio-cultural approach and finally economic approach as elaboratively described in three units.

Unit 16: Physiographic Approach

Unit 16 has been devoted to the study of physiographic approach to geography of India. It will provide you an idea about the concept of physiographic regions. You will learn about the physiographic approach in terms of physiographic regionalisation as devised by renowned scholars. You will further learn many aspects related to diverse kinds of physiographic regions and appreciate physical landforms and their importance in terms of precious natural resources.

Unit 17: Socio-Cultural Approach

Unit 17 has been devoted to the study of socio-cultural approach. In the beginning, you will get an idea about the concepts that have been applied to define and identify socio-cultural regions of India. You will learn about the socio-cultural approaches as devised by renowned scholars. You will also learn about the diverse aspects associated with various types of socio-cultural regions and regionalization schemes. After studying this Unit, you will be able to comprehensively understand the socio-cultural regions of India along with key characteristics and their importance in the context of human society and nation.

Unit 18: Economic Approach

Last Unit 18 of this Block (course as well) has been devoted to the study of economic approach. As evident, economic approach is important as far as economy of any geographical area on the planet Earth is concerned. You will get a detailed idea about the economic approach of India as defined by various scholars along with its peculiar characteristics. Further, you will also learn about the importance of economic approach of India in the current context.

We hope that after studying this last block 5, you will be able to comprehend the regional approaches to geography of India in a more coherent and systematic manner.

Our best wishes are always with you in this endeavour.

UNIT 16

PHYSIOGRAPHIC APPROACH

Structure

161	Introduction		Physiographic Regions of India by R. L. Singh
	Expected Learning Outcomes		
16.2	India Physiographic Regions	16.4	Summary
16.3	Physiographic Regionalisation	16.5	Terminal Questions
	Review of Schemes of Regionalisation	16.6	Answers
		16.7	References and Further Suggested Reading

16.1 INTRODUCTION

In the previous Blocks 1 to 4, you have learnt about physical setting, resource base and economy along with population and settlements of India in detail. By now, you must have thoroughly understood the role and relevance of each one of these themes in the context of India in detail. This Block 5 is devoted to the study of Regional Approaches to Geography of India that will further help you to understand broad characteristics of physiographic regions, socio-cultural regions along with economic regions of India. First unit of this Block 5 is devoted to the study of physiographic approach as discussed in Unit 16. Some scholars have divided Indian sub-continent based on the uniformity of physiographic characteristics or in other words, physical features of the area.

We will begin the Unit by discussing various concepts used to identify physical regions in Section 16.2. In Section 16.3, we will discuss about the physiographic regionalisation. We will provide a broad review of key schemes of regionalisation along with Physiographic Regions of India by R. L. Singh. The study of this unit will enable you to understand the physiographic regionalisation or physiographic divisions of India along with review of regionalisation schemes of India in detail to appreciate physical landforms and their importance as natural resources.

It is the physical landscape which provides the absolute space, where spatial and non-spatial activities are carried out by human beings, societies and nations for survival and livelihood.

Expected Learning Outcomes

After studying this unit, you should be able to:

- describe and differentiate various concepts used in the study of physiography;
- understand the physiographic approach to the Geography of India;
- explain the review of schemes of regionalisation of India;
- identify varied physiographic regions on the map of India; and
- discuss the physiographic divisions of India as devised by various scholars.

16.2 INDIA PHYSIOGRAPHIC REGIONS

The word geography has its origin in classical Greek philosophy *Geographia* meaning description of the Earth. It was considered as a branch of knowledge devoted to the study of surface of the Earth. Though, with minor modifications and adjustments to specific requirements, it continued to focus on the description of Earth particularly its surface, yet it emphasized some aspects more than the other until the onset of modernity during 17th and 18th Centuries. Consequently, different concepts were formulated to describe the surface of the Earth properly. Some of the concepts such as relief, terrain, topography, and physiography were used interchangeably, which in turn created confusion and dilution of the subject matter of Geography. Therefore, it is essential to understand these concepts before identifying Physiographic Regions of India.

Relief: Use of the concept relief for describing the surface of the Earth was a major breakthrough against the then most prevalent Euclidian two-dimensional geometry. Relief stands as an opposite of flatness i.e., the measurement differences between two high and low points on the surface of the Earth respectively. Conventionally, relief is always measured in quantitative terms in metric units such as in metre and feet etc. Measurement of relief also indicates slope or gradient of surface for better understanding of the surface of the Earth. However, relief can also be defined through qualitative characteristics such as high relief of plateau, hills and mountains and low relief of valleys, plains and coastal areas. An important characteristic of the relief is the conspicuous absence of description of drainage pattern and systems in a given area. Though, drainage always follows the gradient of the surface.

Terrain: The concept terrain refers to layout of the surface of Earth expressed in terms of elevation, slope, and general orientation of the surface features. The features of the Earth's surface are important from the point of view of suitability to human uses such as settlements, agriculture, infrastructures, irrigation, delimitation of watershed boundaries, surface runoff and groundwater movement, etc. It also includes stability/vulnerability of those activities in relation to aspects of the surface. The understanding of terrain is also crucial for land management, soil conservation, types of farming and development activities. In recent times, the understanding about terrain has become crucial for the selection of strategic location and deployment of defence establishments, positioning of radar and radio communication

system, and development of aviation activities such as alignment of runways and airport, etc.

Topography: It is the depiction of the Earth's three-dimensional surface features including natural and human made features on two dimensional maps. It is because of these characteristics that topography is also called geomorphometry. The main objective of topographical study is to determine the absolute as well as relative position of features of the Earth's surface in terms of both horizontal i.e., latitude and longitude and vertical i.e., altitude coordinates. Therefore, topographical study is significant for military planning, geological exploration, civil engineering, public works and land management.

Physiography: It is popularly known as Physical Geography. Unlike other concepts used to describe the features of the Earth surface, physiography deals with the processes and patterns of natural environment such as atmosphere, hydrosphere, biosphere and geosphere etc., that have contributed in shaping the existing surface features. In other words, it is the study of deciphering the signature of physical processes in shaping the surface of the Earth. W. M. Davis considered physiography and physical geography as one, which according to him studies the features of the Earth involved in shaping the relations of the Earth and human. In other words, it is the study of human beings' physical environment. It is largely because of these specific aspects that physiographic regions are most common among the geographical studies. The themes included in physiography are aspects of natural environment, structure, and processes of the landforms, rock types, and biotic and abiotic natural resources, minerals, soils, rivers, watershed, lakes, glaciers, oceans, and flora and fauna, climate particularly precipitation, temperature and weather-related phenomena and the way these have impacted on giving specific characteristics to human activities i.e., agriculture, industry, trade and transport and human settlements, etc.

It is on the bases of the comprehensive and inclusive approach embedded in the physiography that physiographic regions have been preferred in this Unit over other concepts.

SAQ I

What is physiography? Elaborate with suitable examples.

16.3 PHYSIOGRAPHIC REGIONALISATION BY R. L. SINGH

Since, the scheme of regionalisation presented by R.L. Singh is more elaborate in terms of the micro details and presents a comprehensive account of most of the schemes of Physiographic Regions. So, the scheme of regionalisation presented by him has been discussed in detail in the concluding section of this chapter. However, the scheme of physiographic regions suggested by R.L. Singh is based on the contribution of other geographers like Baker and Stamp, Holdich, Kazi, S.A., S.P. Chatterjee and Pithawala. Therefore, it is necessary to present a review of the contribution of

these geographers before discussing the physiographic regionalisation of R. L. Singh in detail.

16.3.1 Review of Scheme of Regionalisation of India

In geographical studies, the Regional Approach is of paramount value, as it tries to incorporate the entire range of geographical factors. It may encompass physical, biotic and human factors in its multifarious forms and dimensions over the surface of the Earth. Therefore, we are discussing few important schemes of regionalisation of India to make you understand and learn the same.

The first systematic attempt to present Geography of India and Regional Geography in particular was made by Thomas Hungerford Holdich in his book: India 1904. The book was commissioned at the request of Mackinder. It was a combination of systematic and regional approaches. Chapters on Early India, People of India, Political Geography, Agriculture and Revenue, Railways, Minerals and Climate presented systematic account of the themes while chapters on Geography of the Frontiers: Baluchistan, Afghanistan, Kashmir and the Himalayas, Geography of the Indian Peninsula, Assam, Burma and Ceylon presented the regional account of India. The attempts made by Holdich were furthered by L.D. Stamp who in turn was greatly influenced by Russian Climatologist Wladimir Koeppen particularly his Climatic Regions of the World and Regional division of India prepared by John MacFarlane in his famous volume on Economic Geography. MacFarlane was the first to identify the natural regions of India based on Geology, Climate, Physiography, Vegetation, Drainage and Soils. He identified the following natural regions: The Himalayan Region, the North-West Border Land, the Ganges Plain, the Indus Plain, the West Coast Region, the Black Soil Region and the North-East Deccan. Following these developments, Stamp developed a scheme of regionalisation of India in 1922-23. There was yet another attempt made by A.L. Baker during the same time. Though, their schemes were independent of each other yet they appeared during the same time and similar in methodology as adopted by them.

Baker and Stamp had broad agreement about the boundaries of the regions because both adopted similar methodology i.e., physiographic and climatic parameters for regionalisation which they named as Triple Natural Regions. The three Macro Regions identified by them were:

Natural Regions of the Mountain Wall: It was based on climatic features and elevation of the area. It had four sub-regions: Eastern Hill Regions, Himalayan Regions above 1,500 metre, Himalayan Region below 1,500 metre and Indian parts of Tibetan Plateau.

Natural Regions of the Northern Plain: It was based on soil and climatic parameters. Older alluvium of the Uttar Pradesh and Punjab were considered different from the newer alluvium of Deltaic Bengal. The Middle Ganga plain was separated from the Upper Ganga plain by 40 inch isohyet.

Natural Regions of the Indian Plateau: Stamp preferred calling the Regions South of Satpura range instead of Peninsular India or the Deccan. However, he divided it into coastal region, plateau and regions of Satpura mountains.

Pithawala was yet another geographer interested in Regional Geography of India and criticised the approach adopted by Baker and Stamp. He proposed the predominance of Physiographic uniformity as the **master principal factor** in the scheme of hierarchy of regions in India. Though, he approved the Triple macro divisions of India proposed by Stamp and Baker and suggested that the coastal plains are only shore facies of Deccan Trap and Southern plateau provinces. These views were criticised by fellow geographers particularly Kazi S. Ahmad. The criticism was mainly about the fallacy and feasibility of master principle to regionalise a diverse and large country like India, no matter how rigorously and logically sound that principle may be. Ahmad drew a sharp distinction between underlying Geological structure and the over manifested physiography. He opined that geologically there are three major divisions but for geographers there are four physiographic divisions. The complexities increase in the identification of lower-level regions. Ahmad in his turn proposed his scheme of regionalisation by suggesting Four Macro Regions of India by separating the coastal plains from the Indian plateau. He faced criticism from Spate for lack of proper justifications for the separation of the coastal plains along with multiple logical inconsistencies in identifying the hierarchy of the regions. The major problems were encountered in clubbing the Greater Himalayas and the Sub-Himalayan mountains as undifferentiated mass of Himalayas. Spate while agreeing with the robust scheme of regionalisation suggested by Ahmad yet lamented about his inability to handle the local knowledge that has gone out of his control on many occasions and the level of confusion increases as one moves down the hierarchy of regions. However, the problem with Ahmad was more because of his geographical determinism.

Spate in his turn proposed the triple tectonic division and questioned why four divisions and not five as the Eastern littorals are different in almost every respect from the Western Coastal Plains. Moreover, Spate (Spate and Learmonth (1954, 1984) was highly critical of Pithawala's claims of precisions in matters related to regionalisation of India because to him "understanding was more important than classification" and he criticised the overarching ensemble of physiography covering climate, natural vegetation, human settlements and even cultures etc., and called it over deterministic. According to Spate, Pithawala seems to have treated physiography and culture as spatial co-variants, because he thought that human activities are controlled by physical environment.

Spate (Spate and Learmonth, 1954, 1984) divided India into **three tectonic divisions** taking **structure** as the main factor. In spate's words (Spate and Learmonth, 1954, 1984), "structure is perhaps the most obvious guide, at any rate on the macro level" but "climate and position can never be ignored". Spate (Spate and Learmonth, 1954, 1984) was more liberal in choosing the indicators at sub-regional levels and proposed a flexible and dynamic scheme of regionalisation claiming that "rigid definition is however impossible" because in a large country like India it is impossible to a factor that has universal application. He followed no strict principle to put regions having diverse characteristics juxtaposition to each other as long as these are not detrimental to understanding and provided enough scope to further sub-divisions with the advancement in new technology and methodology of regionalisation. Similarly,

he (Spate and Learmonth, 1954, 1984) was very particular that the “scale is of the essence” in the process of regionalisation for example a ridge may be a prominent feature in a plain but it could be simply an insignificant feature in the Himalayas. Similarly, “the Siwaliks and other Sub-Himalayan zones, are ribbons hundreds of miles long and only a few miles wide. To treat them as a whole would involve an intolerable amount of cross referencing” (Spate and Learmonth, 1954, 1984). Thus, he proposed that geographers should be sensitive to both the variations in the geomorphological texture and intensity of human activities while dealing with the scale of variations. The net outcome of these postulations resulted in the identification of Three Macro Regions (excluding the Islands), 34 First Order Regions, 74 Second Order and 225 sub-divisions of these.

During the time of struggles for independence, political factors played an important role in determining the Geography of India. Consequently, a large number of Indian Scholars (Panikkar, 1955) highlighted the significance of “India: Geographical Factors in Indian History” and S.P. Chatterjee (1947) “India: An Introductory Regional Geography”, were some of the pioneering works on the Post-Colonial Geography. S.P. Chatterjee was inspired by the turn of events in 1947. To him “India was part of the British Empire for about two centuries. On August 15, 1947 came a major political change. India was partitioned” (Chatterjee, 1947). These are indicative of the fact that the systematic geography is highly unsatisfactory to answer such questions because “particular type of environmental factors, which distinguish one region from another are not necessarily confined within the political limits of individual states” (Chatterjee, 1947). On the contrary, the physical environment would continue to exert the same influence. Consequently, initially he divided India into Nine Physico-Geographical Regions mainly on the basis of physiographic characteristics namely: 1. The Himalayan Mountain Ranges, 2. Ganga Plains, 3. The Indian Desert, 4. Peninsular India: Northern Section, 5. Peninsular India: Southern Section, 6. The Deccan Plateau, 7. Peninsular India: The Lava Region, 8. North Eastern Region: Brahmaputra Valley Assam, 9. Hill States: Meghalaya, Manipur, Nagaland, Tripura and Mizoram. These divisions according to him are less suitable in case of India because geography without acknowledging emphatic presence of human beings particularly their “modes of living”, which in turn is a reflection of interdependence among physiography, climate and population, is likely to make it less rigorous. So, he suggested the following alternative physiographic regions: 1. Dry Lands: Hot deserts and Semi-deserts, 2. Tropical Grasslands, 3. Temperate Grasslands, 4. Tropical Rainforests, 5. Northern Lands of Arctic and Subarctic Climates, 6. Developed Northern Coniferous Forests, 7. Monsoon Regions, 8. Subtropical and Temperate Arable Lands and 9. Manufacturing and Mining. He was very critical of the state reorganisation of India (administrative regions) for neglecting physical environmental characteristics and suggested that the following fundamental physical factors of physical unity for the purpose of regionalisation: Climatic Regions, Natural Vegetation Regions, Soil Regions, Structural Regions and Physiographical Regions. On the basis of these factors, he divided India into the following regions: Himalayan Mountain Region, Ganga Plains, the Indian Desert, Peninsular India North Section, Peninsular India South Section or the Deccan Plateau, the Coastal Plains and the Indian Islands.

Independent India was in need of new narrative to engage people of India based on objective facts and scientific methodology. India claimed to be a democratic and welfare state. Therefore, it emphasised on creating a robust data base on the socio-cultural and economic aspects without diluting the emphasis on the inventory of natural resources and physical aspects. The contributions made by Central Statistical Organisation (CSO) established in 1951 under the Ministry of Statistics and Programme Implementation along with Census of India under the Ministry of Home Affairs and re-naming of the Imperial Survey into Survey of India, etc., played major roles in creating the much-needed objective robust data base. The data thus created helped Geographers in Independent India to develop objective understanding about India.

The contribution made by **Banaras School of Geographers** under the **leadership of R.L. Singh** and the way his team emphasised on the importance of physiography in understanding the Geography of India is important. According to R.L. Singh (1971), "Geology, Structure, Relief and Physiography together with the positional factor provide a fairly clear-cut division of India into four Units". He further emphasised that the Himalayan Mountain Region, the Great Plains, the Peninsular Uplands and the Indian Coasts and Islands "are simple but effective macro divisions of the country and go well with the various patterns of the land in general. They are mutually distinct from each other, each having distinctive 'living space' with different set of factors. Each of these contrasts with the other in structure, landforms, climate, soils, natural vegetation, population and settlement distribution patterns, cultural aspects, economic development and above all in the possibilities and challenges" (Singh, 1971). Unlike other schemes of regionalisation, he emphasised on the concept of core and other areas within a region. A core is characterised by development of specific features of the region developed 'par excellence' while in other areas the characteristics tend to be more apparent than real (Singh, 1971). On the bases of the above-mentioned assumptions, R.L. Singh identified 4 Macro, 28 Meso, 67 First Order and 192 second order Regions.

The scheme of regionalisation suggested by R.L. Singh was more detailed based on the facts made available through different government organisations, a few of which have already been mentioned. However, it was relatively weak scheme in terms of methodology and conceptual understanding. Consequently, it embraced some problems particularly with the schemes suggested by Spate. Some of the main differences were:

R.L. Singh followed a strict methodology for regionalisation though discussed with a group of geographers and distributed specific regions among various geographers. There were some who had extensive knowledge about the region, so those chapters had presented an excellent analysis, but there are some left over regions assigned to young geographers. These chapters are deficit in terms of the rigour that was displayed by scholars like C.D. Deshpande (Maharashtra) and S.L. Kayastha (Himachal Region), etc.

Similarly, the inclusion of Rajasthan plain within the Great plains, the extent of Indo-Ganga Divide (Punjab Plain South) between Satluj and Yamuna, 100metre contour as the boundary between the Upper and Middle Ganga plain, separation of the coastal plains from the Peninsular Uplands and their

inclusion with the Islands of Bay of Bengal and of Arabian Sea are some of the main methodological problems those have made this scheme weak.

Spate has included the entire North Eastern Regions under one Meso Region: The Eastern Borderlands: Assam and NEFA but R.L. Singh divided these into four Meso Regions included under different Macro Regions. Assam valley is part of the Great plains, Eastern Himalaya and Purvanchal region, parts of the Himalayan Mountain region and Meghalaya-Mikir region and parts of the Peninsular uplands. However, separating Arunachal Pradesh from the Purvanchal and inclusion of Cachhar region with it poses serious methodological problems apart from committing a factual mistake by including Barak river among the tributaries of Brahmaputra.

As mentioned before, the publication of data through various agencies of the Government of India motivated many geographers to map the regional pattern of various themes related to planning. Though, its beginning was made with the publication of India's water wealth: its assessment, uses and projections, by K.L. Rao (1975) which has been now upgraded by the Ministry of Water Resources, Government of India (2014), and National Remote Sensing Centre into 'Watershed Atlas of India' too have contributed in evolving new schemes of physiographic regions.

At this juncture, the contribution made by C.D. Deshpande (1992) in his book: "India: A Regional Interpretation" attempted to cast a fresh insight into regional geography of India. He too was great admirer of the significance of core in the region, but his concept of core was different from that of Subbarao, Spate and R.L. Singh. The core areas (perennial nuclear regions) according to Spate (Spate and Learmonth, 1954, 1984) were "major agricultural areas, for the most part alluvial". Subbarao (1958) held altogether different viewpoint about the core areas (areas of attraction) and he held on to the presence of "cycles of cultures" for his scheme of regionalisation. For R.L. Singh (1971), higher concentration of development potentials was the essence of the core and C.D. Deshpande (1992) attributed high weightage to the evaluation of non-visible traditional, social-cultural and historical aspects of the regional communities. According to him "cultural facets of the regional communities such as language is useful basis in spite of the spatial variations in traditional nature of dialects, bilingual belts and the multi-lingual islands of urban settlements. Language used in association with traditional regions the core and their broadly known limits provide a working delineation of a geographical region (Deshpande, 1992). Though, at the macro level, he too followed the tripartite division of India. Yet he (Deshpande, 1992) failed to resist the temptation of the data provided by the governmental agencies at the State and District levels and opined that "the existing States of the Unions provide the basis of the regions of the next order and the level below that is delineated on the bases of cultural parameters relating to the human occupance, spatial spread and growth in numbers, ethnic and linguistic affinities, and political, religious and cultural inter-relations. Finally, he identified 12 Geographical regions and 53 divisions.

Another significant work in the field of multi feature thematic regionalisation has been attempted by National Bureau of Soil Survey and Land Use Planning (ICAR, 1999). They have used a very comprehensive methodology

by including physiography (19 divisions), soils (16 soilscapes), bioclimatic regions (5 regions) and soil temperature regimes (5 classes of length of growing seasons). Finally, they identified six major Agro-climatic Regions: Arid Ecosystem, Semi-arid Ecosystem, Sub-humid Ecosystem, Humid-Perhumid Ecosystem, Coastal Ecosystem and Island Ecosystem. These have been further sub-divided into 20 first order regions and 130 sub-regions.

Similarly, Soil and Land Use Survey of India has divided India into 6 water resource regions, 35 basins, 112 catchments, 550 sub-catchments, 3257 watersheds and large number of sub-watersheds and micro watersheds.

Geographers have so far been busy in mapping the phenomena both natural and human and the interaction between the two for so-called building of a better future, or sustainable living in its entirety. Post 1972 with the publication of "The Limits to Growth" (Meadows, 1972) and "Our Common Future" (World Commission on Environment and Development, 1987) followed by "Agenda-21" (UN, 1992) brought in a sea change in the narrative on society and environment. Geographers could hardly afford to ignore the challenges highlighted in these reports. In India, beginning was made by Ministry of Urban Affairs, Government of India and it commissioned "First Vulnerability Atlas of India" (1997). Initially, the atlas was prepared taking Seismic Hazards, Cyclone and Wind hazards, Flood Hazards and Housing Vulnerability Atlas for the entire country. Subsequently, they also published "Landslide Hazard Zonation Atlas of India" (2003) in collaboration with Centre for Disaster Mitigation and Management. Since the theme identified by the concerned organisation related to mitigation and management of the hazards, they have regionalised the country on the basis of frequency and intensity of the hazards at the national level; and second and third order levels of the regions have been identified by the state governments and the district administrations. In case of the first three hazards i.e., Earthquakes, Cyclone and Winds and Floods, the damage risk levels have been classified into five categories: Very High Damage Risk, High Damage Risk, Moderate Damage Risk, Low Damage Risk and Very Low Damage Risk. But landslide zones have been identified as: Severe to Very high, High, Moderate to low and Unlikely.

As mentioned before, the contribution of R.L. Singh becomes more relevant in the light of the contributions and differences of viewpoints in dividing India into Physiographic regions. It can be said that though, various scholars have emphasised and highlighted specific features about the geography of India and presented different schemes of its regionalisation, yet all have broadly agreed on the important role played by physiography of India. The major basis of difference was largely because of the confusion between the concepts mentioned in introductory section of this Unit i.e., relief, terrain, topography and physiography.

SAQ 2

Briefly discuss the triple natural regions as postulated by Baker and Stamp.

16.3.2 Physiographic Regions of India by R.L. Singh

R.L. Singh identified Four Macro Regions based on the stratigraphy, tectonic history and relief as well as erosional processes (Singh, 1971, p. 6). These regions are discussed with additional broad information enriched by the contribution of other geographers such as spate, baker and stamp etc., as shown in Fig. 16.1. Thus, there was a broad agreement among the geographers to identify the four physiographic regions of India.

1. The Northern Mountains or Extra Peninsular Mountains
2. The Great Plains or Northern Plains
3. The Peninsular Uplands or Indian Peninsula
4. The Indian Coasts and Islands

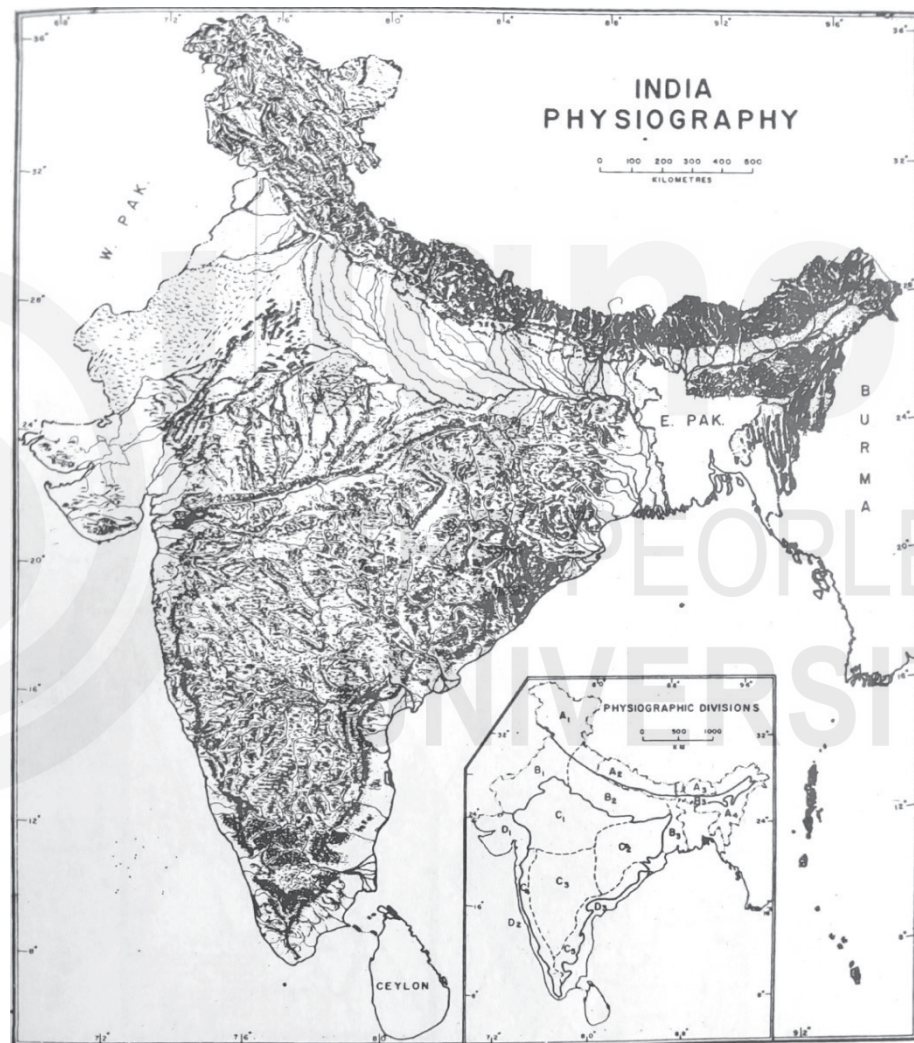


Fig. 16.1: Physiographic Divisions of India.

- A. Northern Mountains: 1. Western; 2. Central; 3. Eastern; 4. Assam-Meghalaya Hills.
 B. Great Plains: 1. Western Plain; 2. Central Plains; 3. Eastern Plain.
 C. Peninsular Upland: 1. Aravalli-Satpura Uplands; 2. North Eastern Upland Complex; 3. Deccan Uplands; 4. Western Ghats; 5. Eastern Ghats.
 D. Coastal Plains: 1. Gujarat Coastal Plain; 2. West Coast Plain; 3. East Coast Plain

(Source: Singh, R.L. ed. (1971). *India: A Regional Geography*. Varanasi, Silver Jubilee Publication, National Geographical Society of India)

1. Northern Mountains or The Extra-Peninsular Mountains

The relative location of this region is to the south and west of the characteristic senile topography of Tibetan plateau and to the north of near featureless plains of Indus, Ganga, Brahmaputra and their tributaries. Included in this broad macro region are Himalayas in the north and Purvanchal mountains and hills bordering Eastern Tibet and international border with Myanmar. The general alignment of these near parallel mountain ranges in this region are marked by massive faults, deep gorges and valleys from North-West to South-East Directions in Jammu, Kashmir, Ladakh, Himachal Pradesh and from west to east in Uttarakhand, Nepal and foothills in northern part of Uttar Pradesh and Bihar bordering Nepal, south-west to north-east directions in Darjeeling-Sikkim and Arunachal Himalayas and north to south directions along the India Myanmar border. The twists and turns in the direction of these mountain ranges is largely due to the differential pressure exerted by the Indian Plate on the sedimentary deposits on the bed of Tethys sea and the resistance it received from the Eurasian Plate in the north, which is explicit from the extension of Deccan plateau in north-eastern region of India, the formation of Malda gap due to fault, detachment of Meghalaya plateau from Chotanagpur plateau and breaking up of Karbi-Anglong plateau from Meghalaya plateau and formation of Kopili fault between the two plateaux on the one hand and change in the direction of Naga, Manipur and Lusai hills from north to south direction on the other hand. Thus, there are three important mountain ranges comprising the Himalayas: Greater Himalayas, Middle Himalayas and Siwalik hill. Greater Himalayas has two sub-divisions comprising of Great Himalayan range and Trans Himalayas. The Great and Middle Himalayan ranges are extending from north-western region from Gilgit Baltistan to east in Naga, Manipur and Mizo hills, though dissected by deep gorges of big rivers coming from Tibet in the north and rivers originating from glaciers of Greater Himalayas. Some of the important glaciers found in the region are Siachen, Drang-Drung, Rimo (Ladakh), Bara Shigri, Chota Shigri (Himachal Pradesh), Bhagirathi Kharak, Bandarpunch, Gangotri, Kafni, Chaturangi, Milam, Satopanth (Uttarakhand), Zemu, Rathong, Lonak (Sikkim) Bichom, Kangto and Mazgol Glaciers (Arunachal Pradesh). As opposed to other Himalayan ranges, the Siwaliks are highly dissected and eroded hills situated to the south of Middle Himalayas and north of the Great plains.

Geological structure of the mountains as deciphered through the signatures and active geological and geomorphological processes indicates that the region originated due to structural displacement of Indian and Eurasian Plates from sedimentary deposits of the Great Geosyncline of Tethys Sea. The sea was situated between Gondwanaland (Indian Plate) in the south and Angara land (Eurasian Plate) in the north. This resulted into the formation of near parallel folded mountain ranges of varying heights. The approximate time of the movement of the Indian Plate towards north was estimated to be 65-70 million years ago. It was neither onetime nor an end affair. On the contrary, it continued over a prolonged geological time, in different phases of differential intensity of the thrust, thus resulting into the upliftment of near parallel mountain ranges at different geological times and the process is still active. First phase of the upliftment was during Oligocene period resulting into the

rise of the Central Himalayan axis comprising Greater Himalayan ranges. These ranges are composed of old sedimentary and crystalline rocks. The second phase of upliftment took place during Miocene period, characterised by massive warping up of the sediments deposited in basins. The third phase was marked by folding of Sivaliks in post Pliocene period. The main difference between the first, second and third phases apart from the time was the place or origin. The upliftment in first and second phases was from sedimentary deposits in Tethys Sea, while the Sivaliks originating in the third phase had originated from river which was running parallel to Himalayan ranges to their south. Geologists call it Indo-Bharm river or Shivalik river. The bed of this river rose in post Pliocene period giving birth to hills.

Approximate length of these mountain ranges from Gilgit-Baltistan in the north-west to Tsangpo-Brahmaputra gorge in the north-east is around 2400 kilometre. In addition, there are approximately 500 kilometre long Naga-Manipur and Mizo hills. On the bases of timings of the upliftment, Himalayan ranges can be divided into the following four zones:

- I. **Trans Himalayan Ranges:** These are also referred as Tibetan Himalayas. These are composed of marine fossil bearing sedimentary rocks ranging from Palaeozoic to Eocene of Pleistocene era. Important ranges included here are Ladakh, Zaskar and Karakoram ranges. Owing to their location in the rain-shadow zone of Great Himalayan range, these are cold and arid and display a unique combination of glacial and aeolian landforms. These ranges have some of the largest glaciers in Karakoram range and sand dunes in Nubra valley.
- II. **Great Himalayan Ranges:** This range is also known as Axial range and is mainly composed of crystalline and metamorphic rocks such as Granite, Schist and Gneiss intermixed with older sedimentary rocks of the Purana series. The geomorphic features of these ranges are marked by glacial landforms, glacial lakes, high peaks, deep gorges, steep slopes along with 'U' Shaped and 'V' shaped valleys, river terraces and moraines. An important feature of these ranges is the presence of temperate grasslands between winter snowline and permanent snow line.
- III. **Lesser Himalayan Ranges:** These are known as Middle Himalayas. These ranges have been subjected to folding and thrust faults contributing in the formation of Nappe zones characterised by displacement of the older rocks and thrust on the newer rocks. Unlike the other two zones to its north, the Central Himalayas have lesser role of glaciers in shaping the landforms, but active river erosion and deposition in the form of well pronounced 'V' shaped valleys, alluvial fans and river terraces.
- IV. **Outer or Sub-Himalayan Zone:** These are also referred to as Siwalik hills composed of sedimentary deposits and conglomerate derived from eroded material of Himalayan ranges in the north. It is believed that these were formed during upper Tertiary period and have been subjected to severe erosion by the rivers and streams coming from the north. Unlike the other ranges of Himalayas, Sivaliks are absent beyond Tista-Mahananda fault in North Bengal. The geologists are of the view that the thrust was so intense towards the north-eastern extent of the Indian plateau that Siwalik ranges have been pushed under Middle Himalayas leaving behind Duar

formations in north-eastern region similar to Bhabar and Terai in Uttarakhand/Uttar Pradesh.

The relief of the Himalayan ranges particularly the Greater and Middle Himalayas is characterised by high peaks, steep slope and highly rugged topography created by glacial and fluvial processes of erosion and deposition which is different from aeolian and glacial landforms in Ladakh and Tibet in the north and fluvial landforms in riverine plains in the south. Height of the ranges increases from south to north and reaches more than 8,000 metre, in many cases of peaks located in the Great Himalayan range. However, there are also a few peaks in Trans Himalayas ranges with height more than 8,000 metre. It is largely due to these high mountain ranges that Himalayas also act as great climatic divides between Central Asia and South Asia which is characterised by emphatic presence of tropical Monsoon climate. But apart from these, Himalayas have also restricted the cultural interaction between the communities of South Asia with those of Central Asia including Tibet. The limited interaction was possible only through high mountain passes located in the Great and Trans Himalayan ranges. Some of the important passes from west to east are: Aghil, Mintaka, Khardung La, Karakoram pass, Chang La, Zoji La, Bala Lacha La, Rohtang, Rupin, Borasu, Niti, Mana, Barahoti, Kalindi, Dhumdhar Kandi, Traill's, Lipulekh, Tunjun, Jelep La, Nathu La, Pangsau, Kumjawng, Sella, Diphu, Bum La and Keping La.

Himalayas continues to be a theatre of active geological forces and geomorphological processes as manifested in frequent occurrence of earthquakes sometimes recording as high as 8 on Richter scale, presence of young tilted beds of lake deposits in the form of Karewas in Kashmir, active slopes resulting into frequent occurrences of landslides, movement of glaciers and avalanches, fast flowing perennial rivers and streams prone to flash floods, forming deep valleys, rapids, waterfalls, river terraces and alluvial fans etc. Similarly, the presence of fossils embedded into sedimentary deposits of sub-Himalayan of post Tertiary deposits indicates about relatively young age of the hills. In between Siwalik hills and Middle Himalayas, there are a large number of longitudinal valleys of tectonic origin known as Duns. Some of the important ones are Udampur Dun, Pinjor dun, Harki dun and Dehradun etc. It is important to note that the presence of Siwaliks and Dun valleys are conspicuous by their absence beyond the Malda fault in north eastern Himalayas.

Himalayas are not only the longest and highest mountain ranges, but these are also the wettest mountain systems in the world and environmentalists address the Himalayas as the mountains of water on account of the number and size of the glaciers, lakes, natural springs and aquifers. These mountain ranges also act as the greatest watersheds in the world. Most of the rivers originating from these mountain ranges are Indus and its tributaries flowing towards the west; Ganga, Brahmaputra, Irawadi, Chindwin and their tributaries flowing towards south and east. The inland drainage in the Tibetan plateau, most of the rivers in this region originate from glaciers and lakes located in Great Himalayan range and Trans-Himalayas and flow through numerous faults and gorges. Important rivers like Indus, Satluj and Brahmaputra have their origins in Trans Himalayas across Great Himalayan range and these form important river system in South Asia presenting typical

examples of antecedent drainage. Apart from these, some rivers originate from glacial lakes and highly localised aquifers and springs. Most lakes in Himalayas contain freshwater but in some Trans-Himalayan areas like Pangong Tso, Tso Kar and Tso Moriri etc., are salt water lakes.

2. The Great Plains or Northern Plain

The Great Indian Northern plain is situated in between Himalayas in the north and the Indian plateau in the south. It comprises of plains created by sediments deposits of three river systems: the Indus, the Ganga and the Brahmaputra along with their tributaries. These plains extending from river Indus in Pakistan and river Ganga in India-Bangladesh are approximately 3,200 kilometre in length. Out of these, 2,400 kilometre plains from the banks of Ravi in the state of Punjab to Ganga delta in West Bengal and Assam fall in India. Average width of these plains varies between 150 to 300 kilometre. However, width is around 90 kilometre in the case of Brahmaputra plains and it increases to 300 kilometre near Allahabad. It is believed that these featureless plains have been created by the subsidence of the northern flanks for Indian plateau resulting in the emergence of geo-syncline. This geo-syncline got filled up with the sediments deposited by rivers flowing from Himalayas in the north and from the plateau in the south. The approximate time line of the origin of these plains has been estimated to be since the Tertiary times and the process is still active. Thickness of these deposits at places is up to 5,500 metre, which tends to decrease along the northern margins of the plateau on account of its subsidence during the phase of mountain building. The northern margins of the plains are marked by two narrow belts of deposits brought by Himalayan rivers at the break of slopes. Low gradient makes it difficult for rivers and stream flowing down from Himalayas to transport heavy material. Thus, rivers start depositing materials like boulders, pebbles and other coarser matter immediately after leaving the hills. This creates a zone of high porosity called Bhabhar, which ultimately creates conditions for disappearance of most of the streams. Average width of Bhabhar varies between 8 to 16 kilometre. Immediately after depositing heavy transported material in Bhabhar, there is a narrow belt characterised by swamps, marshes and water logging to the south of Bhabhar. It is marked by re-emergence of rivers and streams without well-defined river channels. This area is known as Terai. In the remaining part of the plains, there are three distinct relief features present across the plains: the Khadar and the Banger plains and the deltas. Apart from these, there are riverine islands in Khadar and Deltas of these rivers. Majuli is one of the largest riverine Islands on Khadar plains of river Brahmaputra. Khadar and Delta are characterised by frequent inundation and deposition of new alluvium along with frequent shifting of river channels. As opposed to this, old alluvial deposits (Banger) are used for intensive agriculture in most parts of the plains, and also for tea plantation in north Bengal, Brahmaputra plain and Surma valley.

Monotonous relief of these plains is disrupted by some significant crustal movements. First of these is the north-eastern tilt of the Indian Plate creating condition for the Indo-Ganga divide, breaking of the Indian Plate on its northern extreme near Rajmahal hills and ultimately its detachment from the Indian plate leading to the formation of Malda fault between the Rajmahal hills in the west and Garo, Khasi and Jaintia hills in the north-east. The impact of

the thrust was so massive that the detached north-eastern plate further broke into two parts: the Shillong plateau and Karbi-Anglong plateau separated by Kopili fault. The other consequences of this were separating Barak river from Brahmaputra river system on the one hand and changing direction of flow of river Brahmaputra from east to west in between Meghalaya plateau to its south and Bhutan-Arunachal Himalayas to its north. It is believed that the change in the direction of Eastern hills from north to south direction was also the result of the same thrust. Moreover, on account of subsidence of Indian plate under the Eurasian plate, drainage system of Peninsular India also formed part of the Ganga river system, particularly the upliftment of Potwar basin in the north-west believed to have resulted into the near disappearance of Ghaggar river and capture of river Yamuna and its tributaries by the Ganga river system changed the course of rivers.

3. Peninsular Uplands or Indian Peninsula:

To the south of north Indian plains lies Peninsular plateau. It has a triangular shape and is broader in the north extending from Delhi ridge to Rajmahal hills and tapers towards south while extending up to the tri-junction of Bay of Bengal-Arabian Sea and Indian Ocean at Kanyakumari. In its geological past, the plateau was much broader in the north extending from Thar desert in the west to Meghalaya-Karbi-Anglong plateaux in the north-east. Wide northern margins of the plateau are marked by the indelible signatures of the tectonic changes including the presence of relict mountains, scarped plateaux, faulted troughs, eroded surfaces of Chotanagpur, dissected gneissic Bundelkhand, rift valleys of Narmada, Tapti and Damodar rivers. Apart from these, the plateau consists of rising relatively high hills which include Nilgiri, Annamalai, Palani and Cardamom hills on the western sides and not so high Panchaimalai hill, Shevaroy hills, Javadi hills, Nallamala hills and Mahendragir in the Eastern Ghats. It also has river valleys of Godavari, Mahanadi, Krishna and Kaveri along with series of plateaus: the Malwa, Amarkantak, Chotanagpur, Telangana, Salem-Coimbatore, Vidarbha, Marathwada and Kolar plateau. With the exception of some peaks, general elevation of the plateau varies between 600-900 metre. It has been mentioned before, that the northern flanks of the plateau have been submerging under Eurasian Plate due to plate movement. The Vindhyan-Kaimur ranges act as water divide between the north, south and south-east flowing peninsular rivers. However, it retains its regional identity with the slope decreasing from east to west directions as indicated by Narmada and Tapti rivers flowing Westward through rift Valleys. In the regions to the south of Satpura-Maikal ranges, slope of the plateau is from north-west to south-east directions as reflected by the drainage system developed by Godavari, Krishna and Cauvery rivers. In the eastern part of the plateau around Amarkantak plateau, drainage pattern is radial with the rivers flowing in all the four directions: Son towards north, Mahanadi towards east, Narmada towards west and Wainganga (a tributary of Godavari) towards south.

The complexities of the plateau are so enormous that geographers once again hold different opinions about the inclusion/exclusion of the coastal plains and Indian desert in the Indian plateau. R.L Singh is of the opinion that Indian desert is part of north Indian plain, because similar to the other plains in north India, Rajasthan was part of the Ghaggar plain, which still is visible

along Punjab-Rajasthan border. Predominance of Aeolian landforms are because of climatic changes particularly increasing aridity. His arguments can be corroborated with the help of evidences available in Wood Fossils Park at Aakal near Jaisalmer city. Views of Spate are different and he included Rajasthan as part of the Indian plateau on the basis of underlying geological structure which is visible in places like Sonar Quila at Jaisalmer city. Similarly, he also included coastal plains as sea fronts of the Indian plateau. His arguments can also be substantiated with the help of paleontological evidences provided by the research conducted by the Natural History Archives. Skeleton of 73 feet long Whale fish in Baroda Museum, the Marine deposits at Brahmsar near Jaisalmer etc., suggest that similar to the coastal plains, Rajasthan desert had been invaded by sea intermittently in its geological past. Existence of Rann of Kachch/Kutch is yet another evidence to prove the same. Based on these complexities, the Indian plateau can be classified into the following meso regions with distinct physical features:

Rajasthan desert, relict Aravali hills, Kutch-Kathiawar region, Malwa plateau, Chattishgarh plateau, Telengana plateau, rift valleys of Narmada-Tapi, Vindhyan and Satpura ranges, Deccan Lava plateau, river plains of Godavari, Krishna and Cauveri, Coimbatore-Salem-Karnatak plateau, Chotanagpur plateau, Maghalaya and Karbi-Anglong plateaus, eastern and western coastal plain, Eastern and Western Ghats.

As mentioned above, the geographers have broad agreements about the physiographic divisions of India based on the underlying geological structure. However, R.L. Singh argued that “the Indian Coasts vary widely in terms of structural and surface characteristics” (Singh, 1980 p. 8). Therefore, for proper understanding they need to be treated as separate physiographic regions along with the two groups of islands i.e., the Arabian Sea Islands and the Bay of Bengal Islands.

4. The Indian coasts and islands

Coastal Plains: Eastern and western coastal plains have been designated by geographers as sea front of Indian plateau. However, these have distinct characteristics not only from the plateau but also between the east and west coastal plains. The west coast is a typical case of submerged coast. These are much narrower except around the Gulf of Cambay and the Gulf of Kutch. Once again these are relatively much wider along the south Sahyadris. The Malabar coastal plains are marked by unique features of backwaters, locally known as Kayals. These are narrow and ideal for development of ports and harbours. West coast is flanked by Western Ghats, which are also the source of numerous short and fast flowing rivers. Unlike east coast, these rivers don't form Deltas at their mouth. As opposed to west coast, east coasts are emerged coastal plains. These are broad and with massive Deltas of Mahanadi, Godavari, Krishna and Cauvery rivers. Unlike Western Ghats, Eastern Ghats are highly eroded and dissected by these rivers. There is no prominent stream that originates from these low hills. On the bases of these intra-regional variations, Singh identified three sub-divisions of the Indian Coastal Plains: Gujarat coast, West Coast and the East Coast.

Islands in Bay of Bengal and Arabian Sea: There are approximately 200 islands spread over 350 kilometre that constitute Andaman group of islands and 19 islands that constitute the cluster of Nicobar islands in the Bay of Bengal. Some of these islands have a length up to 60 to 100 kilometre. It is believed that these islands have volcanic origin. The approximate distance of these islands is between 830 to 850 kilometre, from Haldia port in Bengal Delta and from Chennai respectively. As opposed to these, islands in Arabian Sea have been formed by Coral deposits and these are relatively smaller as compared to islands in the Bay of Bengal. Apart from the differences in their location and other geographical features, the processes of inclusion of these islands into the Indian Union are also different. Lakshadweep group of islands in Arabian Sea had been part of kingdoms of different rulers from Kerala and Mysore particularly Tipu Sultan. As opposed to this, Bay of Bengal Islands got included due to creation of Penal Settlement to keep the Freedom Fighters along with other convicts in complete isolation under the colonial rule “without fear of contaminating the higher breed of humanity living in civilised society” (Chatterjee, 2021). Thus, by virtue of majority of prisoners kept in Andaman and Nicobar group of islands from the beginning of the 20th Century, these islands became entangled with the political history of Indian nationalism and ultimately as part of India after independence.

SAQ 3

- Name the four physiographic regions of India.
 - Briefly discuss Peninsular plateau.
 - Discuss in brief the outer or sub-Himalayan zone with suitable examples
-

16.5 SUMMARY

In this unit, you have learnt the following:

- Different sets of available terminologies used to describe the physiography of a place or region on the face of the Earth.
- Review of schemes of regionalisation of India.
- Importance of physiographic regions of India.
- Physiographic regionalisation scheme as devised by R.L. Singh and other scholars.

16.6 TERMINAL QUESTIONS

1. Highlight the importance of various terms parallel to physiography to describe the surface of the Earth.
2. Discuss the three tectonic divisions of India by adopting structure as the main factor by a scholar named Spate with suitable examples.
3. Give a detailed account of physiographic regions of India.

16.7 ANSWERS

Self-Assessment Questions (SAQ)

1. It is also known as physical geography. Physiography describes the features of Earth's surface and deals with the processes and patterns of the natural environment. It includes atmosphere, hydrosphere, biosphere, and geosphere which contributed in shaping the existing surface features of the Earth. Refer to Section 16.2.
2. These are natural regions of the mountain wall, natural regions of the northern plain and natural regions of the Indian plateau. Refer to sub-Section 16.3.1.
3. a) These are the northern mountains, the great plains, the peninsular uplands and the Indian coasts and islands. Refer to Section 16.3.2
 b) It has a triangular shape border in the north extending from the Delhi ridge to Rajmahal hills and taper towards south while extending upto the tri-junction of Bay of Bengal-Arabian Sea and the Indian Ocean at Kanyakumari. Refer to Section 16.3.2.
 c) It is referred to as Shivalik Hills which is composed of sedimentary deposits and conglomerate. These are derived from the eroded material of the Himalayan ranges in the north. Refer to Section 16.3.2.

Terminal Questions

1. Briefly answer the main characteristic features of each terms used to describe the surface of the Earth with suitable examples. Refer to Section 16.2.
2. While answering this question, discuss the identification of regions and also include the major, macro, first order, second order and further sub-divisions of regions. Refer to Section 16.3.1.
3. To answer this question, discuss the various physiographic regions and highlight the importance of physiography. Refer to Section 16.3.2.

16.8 REFERENCES AND SUGGESTED FURTHER READING

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UNIT 17

SOCIO-CULTURAL APPROACH |

Structure

17.1	Introduction	17.4	Summary
	Expected Learning Outcomes	17.5	Terminal Questions
17.2	India: A Brief of Socio-Cultural Regions	17.6	Answers
17.3	Socio-Cultural Regionalisation by Sopher	17.7	References and Suggested Further Reading

17.1 INTRODUCTION

In the previous Unit (Unit 16), you have learnt about physiographic regions and scheme of regionalisation of India by R.L. Singh and many other scholars in detail. You have understood that it is physiographic regions upon which other kinds of landscapes are created and juxtaposed to take definite shapes in diverse forms. This Unit 17 of Block 5 is devoted to the study of socio-cultural approaches to the Geography of India. It will further help you to comprehensively understand socio-cultural regions of India along with key characteristics and their importance for the society and nation.

In this Unit, we will discuss the socio-cultural approach as devised by renowned geographer named David Sopher and other scholars. We will begin the Unit by discussing briefly various concepts used to define and identify socio-cultural regions in Section 17.2. Then, we will describe the myriad aspects associated with various types of socio-cultural regions and regionalization schemes in Section 17.3. Study of this Unit should equip you to comprehend approaches used for delineating socio-cultural regions of India and their importance.

In last Unit 18 of this course, we will discuss the economic approaches to Geography of India.

Expected Learning Outcomes

After completing the study of this unit, you will be able to:

- understand socio-cultural regions of India;
- comprehend the schemes of socio-cultural regionalization of India;
- recognise significance of socio-cultural regions as a resource; and

- understand the main characteristics of each type of socio-cultural regions of India.

17.2 INDIA: A BRIEF OF SOCIO-CULTURAL REGIONS

Sar-Zamīn-e-Hind par aqvām-e-ālam ke 'Firāq'
Qāfile baste gaye Hindostāñ bantā gayā.

Firaq Gorakhpuri

(In this land: India, people from all over the world came in caravan one after another and settled over a long time and this way India came into existence).

John Heywood, an English playwright, once mentioned “Rome wasn’t built in a day, but they were laying bricks every hour”. Partly, the same could be said more appropriately about India. It is partly because Rome for all practical purposes is history. It had a grand past during the Roman Empire from 31 B.C to 476 A.D. Its presence is only a pale shadow of what it was except that it continues to be the centre of Roman Catholic religion, where the Pope holds unquestioned supreme position of head of Catholic religion. India also had a grand past; it guided the world much before the rise of Roman Empire and unlike Rome, it continues to be in the limelight even today. Rome distinguished itself by championing unitary culture and religion but India, on the contrary, has been cradle of many cultures and civilizations and continues to nurture social pluralities and cultural diversities. India as nation and melting pot of various cultures is an ongoing process. Taking a clue from Hemingway’s metaphor though, in another context, India could be considered a moving feast, which can neither be fixed to its grand past nor reduced to any type of singularity. Therefore, while making any attempt to map the socio-cultural space (s) in India, it is an imperative to keep these facts in mind. It is in the backdrop of these assumptions that the socio-cultural space (s) in India have been viewed by different scholars both within and without in the following ways:

1. The External Image and Imaginations about the socio-cultural space(s) in India:
 - a. The Exoticist
 - b. The Managerial and
 - c. The Curatorial
2. The Internal Image and Imagination about socio-cultural space(s) in India:
 - a. The Civilisational
 - b. The Spiritual and
 - c. The Modernist: Pluralist-Secular-Democratic and Radical.

1. The External Image of India

- a) The **Exoticists** were not only sceptical but also indifferent about the Indian grand culture. Most of these were Eurocentric. Included among these were Lord Macaulay, Archbishop of Canterbury, Rudyard Kipling

and E.M. Foster, etc., among others. The prominent exponents of this approach included Hegel and Kipling etc.

- b) **The Managerialists** were of the opinion that India ranks one among the top four civilizations of the world parallel to the Chinese, the Mesopotamian, the Babylonian and the Egyptian civilizations. It has been the birth place of great religions at different points of time and made significant contributions in the advancement of world civilizations. The seminal contributions made by the Indians in the field of science, mathematics, philosophy, music and dance etc., are testimony to this great cradle of civilization, which has also been the melting pot of many great civilizations as epitomized by the presence of nearly all great religions of the world within one country. However, either the internal cultural achievements were too frequent to be managed properly or the external influences were too ruthless and insensitive to understand the delicate and finer nuances of the Indian cultures that the Indian culture symbolises a chaotic scene all around. There are too many cultural repositories accumulated over centuries that it calls for a serious management skill to understand and preserve the Indian culture. It was propagated by James Mill, Macaulay and Katherine Mayo.
- c) **The Curatorialists** were of the opinion that India, its culture and civilization had made brilliant starts but unlike other civilizations it failed to discard the outdated, obsolete, superstitions, and promote scientific and critical thinking. Consequently, there are lots of unwanted aspects that need to be separated from the truth and rational in order to rescue and resurrect the true and valuable aspects. Just preservation in the name of the historical and ancient will not work here. There is an urgent need of a curatorial approach that will rescue grand tradition of enlightenment, remove the myths and superstitions. Max Muller, the German Indologist among others was of the opinion that British conquest and colonisation of India had reduced the present India to its pale shadow of the grand past. So, he forbade his students from visiting India and recommended that nothing other than a seasoned curators vision and sensitivity will be able to resurrect the grand Indian cultures and civilisation.

The advocates of this approach were Arab geographer Al-beruni (Tarikh al-Hind), Chinese travellers Faxian and Xuanzang, British intellectual with the East India Company William Jones and Jesuit Father Pons from France.

2. The Internal Image of India

- a) **The Civilisationists:** The prominent advocates of this view include Bal Gangadhar Tilak, Aurobindo, Bipan Chandra Pal and Vinayak Damodar Savarkar. With the exception of few differences, they believed that India is quintessentially a civilisational entity. India according to them is the chosen place for the Aryan Race. They take full pride in this chosen God's own-land, where Gods have come down as incarnations at different times to annihilate the destroyers of Hindu religion.

*Yada yada hi Dharmasya glanir bhawati Bharata.
Abyuthanama dharmasya tadatnaman srijamihamn.*

*Paritrāṇay sadhunam vinasya cha duskṛitāṃ
Dharmasānsthapanārthya sambhawāmi yugey yugey*

(Whenever righteousness (Dharma) is on the decline and gets defamed and, the unrighteous is in the ascent, then I body Myself forth (I take incarnation)).

Similarly, they hold the Hindu religious texts to be authentic and true narrations of the heraldry of the religious heroes against the demons called Rakshasa or Asura (demons). A Hindu, according to the chief ideologue of Hindutva Vinayak Damodar Savarkar, is one who considers India a Holy Land (Punya Bhoomi), Land of Ancestors (Pitri Bhoomi) and Land of Birth (Janma Bhoomi). The civilisationists hold the holy scriptures of Hindu religion: the Vedas, the Puranas particularly Bhagvatgita, Manu Smriti and the Ramcharit Manas composed by Maharshi Vedvyas, Manu Rishi and Medieval poet Goswami Tulsi Das in highest esteem and promise to establish Ram Rajya administered along the tenets of Manu Smriti.

- b) The Spiritualists:** The Spiritualists were critical about a narrow and exclusionary definition of Indian culture. Gokhale, Ranade, Gandhi and Tagore were the prominent advocates of the spiritual strength of Indian cultures and life. They opined that the essence of India lies in elevating the local to the global levels and thinking about the common and universal bases of unity of humankind summarized in the philosophy of “**Vasudhaiv Kutumbakam**”. The spirit of oneness was also reflected in the Song 192, Purananuru, Sangam literature)

“Yathum Oore Yavarum Kelir”
(Every place is my home town; Everyone my kith and kin). Similarly, Noble Laureate Poet Rabindra Nath Tagore too expressed the message of universal commonness:

*Where the mind is without fear and the head is held high
Where knowledge is free
Where the world has not been broken up into fragments
By narrow domestic walls
Where words come out from the depth of truth
Where tireless striving stretches its arms towards perfection
Where the clear stream of reason has not lost its way
Into the dreary desert sand of dead habit
Where the mind is led forward by thee
Into ever-widening thought and action
Into that heaven of freedom, my Father, let my country awake.*

It is primarily because of the spiritual strength of its culture, India has not only nurtured millions of faiths and belief systems within itself over millions of years, protected and promoted other faiths and believes originating in other lands but also spread the message of universal love and compassion across the world through the messages of Truth, Renunciations, Nonviolence, Reason, Enlightenment and Peace promulgated by Buddhism, Jainism, Sufism, Sikhism, philosophy of Mahatma Gandhi and Aurobindo, etc.

c) **The Modernists** were initially influenced by the rational, liberal, scientific, industrial, and socio-political revolutions in the West-European countries and North America and subsequently by the October Revolutions in Russia. They had unambiguous reverence to the use of science and technology in the daily lives of people, along with their identity as a citizens, rule of law, i.e., constitutions and participation of people in formulating the political, economic and social policies of the state and society. Unlike the previous two approaches, the Modernists were greatly benefited from the objective, scientific and factual knowledge that formed the bedrock of modernism all over the world. Prominent figures advocating the modernist views were Dada Bhai Naoroji, Motilal Nehru and Jawaharlal Nehru. Over emphasis on facts, objectivity, rationality, scientific temper and data generated through various governmental and non-governmental agencies and urge for more facts, organisation of new social contracts based on the principles of liberty, fraternity, equality, secularism, democracy and scientific temper along with rule of laws formulated by the elected representatives of the people formed the hallmark of modernists in India. But differences over objective-quantitative facts and cultural-qualitative facts led to the emergence of following two separate streams of thought within modernists:

i. **The Liberal Pluralists and Secular**

These are mostly Pre-October Revolution modernists: Jawaharlal Nehru and Dadabhai Naoroji etc., were the main protagonists of the liberal pluralist Modernists group in India. They were equally supported by liberal and philanthropists like A.O. Hume, C.F. Andrews and Annie Besant etc. They were of the opinion that India made a brilliant start in the beginning largely because it had maintained regular interaction with neighbouring cultures and emerged as a melting pot of various cultures and civilizations and benefitted from these intermixing in the development of its knowledge systems, scientific achievements, philosophy, mathematics, art, culture, agriculture and in turn guided the world in many fields. It was largely the rapid development in the West particularly during the industrial revolution, expansion of colonial policies; ruthless exploitation of its resources and mutilations of its culture, India was reduced to dependent status. The modernists opined that though, the impacts of the colonial rule brought in severe damages to the economy and partially to the socio-cultural fabric of India, yet its cultural diversities and social pluralities deeply rooted in the psychology of the Indians continued to thrive in spite of numerous odds. Consequently, the essence of India's culture lies in its plurality, diversity, democracy, secularism and constitutionalism.

ii. **The Radical Materialists**

Success of the October Revolution and triumph of doctrine of Right to Self-Determination, the hallmark of the revolution, motivated the radicals in India mainly R.P. Dutt and Bhagat Singh, etc., to identify a common thread across the history of humankind and postulated that Class struggle has been the mover of history everywhere and India was no exception. The concepts of demons and untouchables to address the lower social classes (subalterns) across historical stages in India were at the one end of the social hierarchy, and the priests, warriors and trading communities constituted the other extreme. In between these two poles, there were numerous communities

amenable to upward/downwards mobility. Majority of these were pushed down and joined the ranks of the lower social class and only a tiny minority succeeded moving up in the hierarchy. The colonisation of India under the British brought in new dynamics to India whereby *ceteris paribus* (All other things being equal), the entire country was reduced to the status of vassal to British Empire. The radicals were of the view that there is tacit understanding between the imperialist and the ruling classes in India and both were against its cultural diversity and social plurality. Therefore, they took it upon themselves to preserve the rich cultural heritage of India and a broad front of the lower social classes along with the working-class organisations of the world have little option but to fight both the enemies within and the enemy outside.

FAIZ "Shub-e-aazadi 1947".

Abhi girani-e-shab men kami nahiaaye.

Chale Chalo ki vo manzil abhi nahi aaye.

(No relief yet from the pain of night; not time yet for the freedom of heart and soul. Keep moving, it is not our destination, yet....)

As mentioned before, the Modernists benefitted from the objective and factual information made available particularly by the archaeological research and empirical studies conducted by government as well as independent researchers. In the words of Sopher "Indian regions are not seen primarily as formal ones each with its unique array of properties but as enduring functional regions in which interaction through space and time creates and sustains whatever formal differentiations is observed. Related cultural elements may be subjected to their own dynamics of diffusion" (Sopher, D. 1980, p.290).

Though, there exists plethora of such research on mapping the cultural spaces in India at different times, yet out of these two significant contributions for the identification of socio-cultural regions from the point of view of the present study are:

1. Bendapudi Subbarao

In his famous book, *The Personality of India: Pre and Proto-Historic Foundations of India and Pakistan*, Subbarao was forthright in acknowledging the contribution made by the new facts made available by the archaeological research in India, which helped him to draw correlations between space and time in terms of cultural diversity in India (Subbarao, 1958). According to him "one of the most basic features of India's cultural history is the diversity". The Indian subcontinent with its vastness and its great environmental and cultural diversity provides a more difficult task to the researcher for mapping the cultural diversity. Therefore, he suggested that though, the Indian history "cannot be treated as a single unit at any period for considerable duration" yet, he opined that looking at the macro level the "whole history of India in a sentence can be described as a conflict between centripetal and centrifugal forces engendered by geography" (Subbarao, 1958).

- a. **The centripetal forces** have always tried to give a political expression to the fundamental unity based on common culture and social heritage linked by a transcontinental communication system. These forces have

been strengthened by certain technological traditions common to the whole country. Taking clues from the centralised 'Pan Indian' Empires such as the Mauryas, Satavahanas, Guptas, Harsha, Mughals and British, he substantiated his thesis and claimed that though, these centralised powers had a relatively shorter life span as compared to the regional local empires yet they symbolised pan Indian power of unification.

- b. The centrifugal forces** are the manifestations of the more vital geographical factors and have counter acted the forces of unification. The regional empires like Kosala, Magadha, Gauda, Avanti, Lata, Saurashtra, Kalinga, Andhra, Maharashtra, Karnataka, Chera, Chola and Pandya seem to have eternal lives. These have survived as "perennial nuclear regions" (Subbarao, 1958). These cultures have manifested the overwhelming influence of regional geographical factors irrespective of the changes taking place "within and without the subcontinent" (Subbarao, 1958).

It is because of the interplay of these forces along with the specific geographical factors and the locations of these regions have yielded a distinct spatio-temporal pattern of culture and cultural landscapes in the Indian sub-continent. Taking clues from the biological analogy used by Griffith Taylor, Subbarao mentioned that the cultural space in India displays "zone and strata" concept which can also be called "age and area" (Subbarao, 1958) concept. Meaning thereby, "If there is a centre where evolution is (whether of organic or inorganic type) taking place.....then, after a reasonable lapse of time, the various differentiated classes will be found to be ranged in zones.... So that the most primitive is at the margins and the most advanced at the centre of series of zones. Thus, the earliest class will have covered the largest area in its migration: but the fossil evidence of this class will be found at the deepest stratum, under the later strata at the centre of evolution" (Subbarao, 1958).

Thus, according to Subbarao, the interplay of the centripetal and centrifugal forces, the age and area concept, regional geographical factors along with India's position of relative isolation cum cul-de-sac in relation to the transcontinental waves of migrations have resulted in evolving unique patterns of settlement-displacement-adjustment/settlement throughout its history. The location of India to the South of the Himalayan Mountain and the way these ranges created formidable barriers between the countries of South Asia and other Eurasian countries with the exception of occasional limited interaction restricted through high mountain passes after prolonged gap sometime extending up to centuries left this region almost alone for most of the time in its historic past. India, unlike the other countries which stood directly in the way of the waves of the transcontinental migrants did not face the total destruction of its historic achievements from time to time.

William Butler Yeats Lapis lazuli

"On their own feet they came, or on shipboard,
Camel-back, horse-back, ass-back, mule-back,
Old civilisations put to the sword.

Then they and their wisdom went to rack:"

On the contrary, the trickles of migrants at intermittent intervals as compared to the main stream of migrants found it difficult to create a major disruption in the existing cultures except gradual displacements-adjustments leading to the evolutions of cross-cultural give and take or composite cultures. Since most of the immigrants had to cross the high mountain passes on the Himalayas, the number and frequencies of their movement was limited spread over many years of disruption so, there were limited options left except evolving composite cultures.

In the words of Raghupati Sahay Firaq Gorakhpuri:

"Sar-zamīn-e-hind par aqvām-e-ālam ke 'firāq'
Qāfile baste gaye hindostāñ bantā gayā"

(On the soil of Hindustan, O Firaq Caravans from all over the world kept coming, and so was Hindustan made).

Moreover, the immigrants were also constrained by the incompatibility of their then existing institutions and technologies. Consequently, they followed a path of least resistance while settling temporarily and again getting displaced by another waves of migrants. The final outcome of all these interrelated factors was: the peopling of India followed a "Z" pattern of movement starting from the Zangerain Gate and Kabul valley in the North to Tamil Nadu-Malabar coast in the South. It is along with these routes of migrations and settling-displacement along with the local geographical conditions, Subbarao divided India into the following cultural regions:

- a) Areas of Attraction
 - b) Areas of Relative Isolation
 - c) Areas of Isolation
- a) Areas of Attraction:** It is also known as Perennial Nuclear Region. Owing to their fertile lands, such areas had attracted the migrants during the various waves of transcontinental migration. On the basis of the archaeological evidences particularly from the Proto-Historic sites of excavation, it has been revealed that the Indus basin, particularly evidences of Harappan culture: were prevalent in Punjab, Ghaggar Basin, Quetta, Kili Ghul Mohammed, Ghazi Shah, Pindwahi, Amri, Kot-Diji, Sindh, Mohanjo-Daro, Kathiawad, Hissar (Rakhigarhi), Ganga Basin: Hastinapur, Maheshvar-Navdatoli, Kanauj, Rajgir, Vaisali, Sonapur and Patna, Bengal: Dinajpur, Midnapur and Hooghly, Malwa Plateau: Maheshvar, Narmada South Bank, Eastern Rajputana, Ujjain and Nagda, Maharashtra: the Valleys of Tapi and Upper basins of Krishna and Godavari, Prakasha, Bahal, Nasik, Jorwe, Nevasa, Lower Krishna-Godavari Basin (Andhra-Karnataka Areas): Brahmagiri, Sanganakallu, Piklihal, Muski and Tamilnad: Pala, Kaveri and Tamraparni, Teri, Arikamedu and Sengamedu.
- b) Areas of Isolation:** Such areas encompass the geographically difficult regions, being mainly inhabited by the primitive tribal groups. Areas of Isolation are also known as Tribal India or Areas of refuge. These can be defined as culs-de-sac. Predominantly inhabited by hunter and

gathering communities and they have “managed to survive in a perfect ecological equilibrium in small communities with simple life suited to their technological attainments” (Subbarao, 1958). Unfortunately, the developed communities that continue to exploit their rich biotic and abiotic resources address them as laggard “they missed their bus” (Subbarao, 1958).

- c) **Areas of Relative Isolation:** It signifies the transitional zone lying between the above-mentioned areas of attraction and the areas of isolation. Such areas are settled by the pastoral communities. Since the predominant waves of the migrants came from the North and most of them from Central Asia to the North of the Himalayas, their technology was less compatible with the local geographical condition prevalent in the moist and sub-humid conditions as well as extreme arid conditions. Therefore, Bengal, Assam on the one hand and Rajasthan on the other presented the areas of relative isolation.

Gujrat: Saurashtra, Lata, Lothal, Rangpur and Kathiawad.

Assam: Kamrup.

Orissa: Ganjam, Puri, Cuttak and Balasore.

Thus, the cultural map of India according to Subbarao has three important regions mentioned above and there exists no well demarcated boundary to separate one from the other (Fig. 17.1). On the contrary, there have been transgressions from the areas of attractions to the areas of isolation particularly under the colonial rule and independent India due to the rich resources base in terms of the natural resources, biodiversity and traditional knowledge systems, these areas have been subjected to transformation of their culture in significant ways.

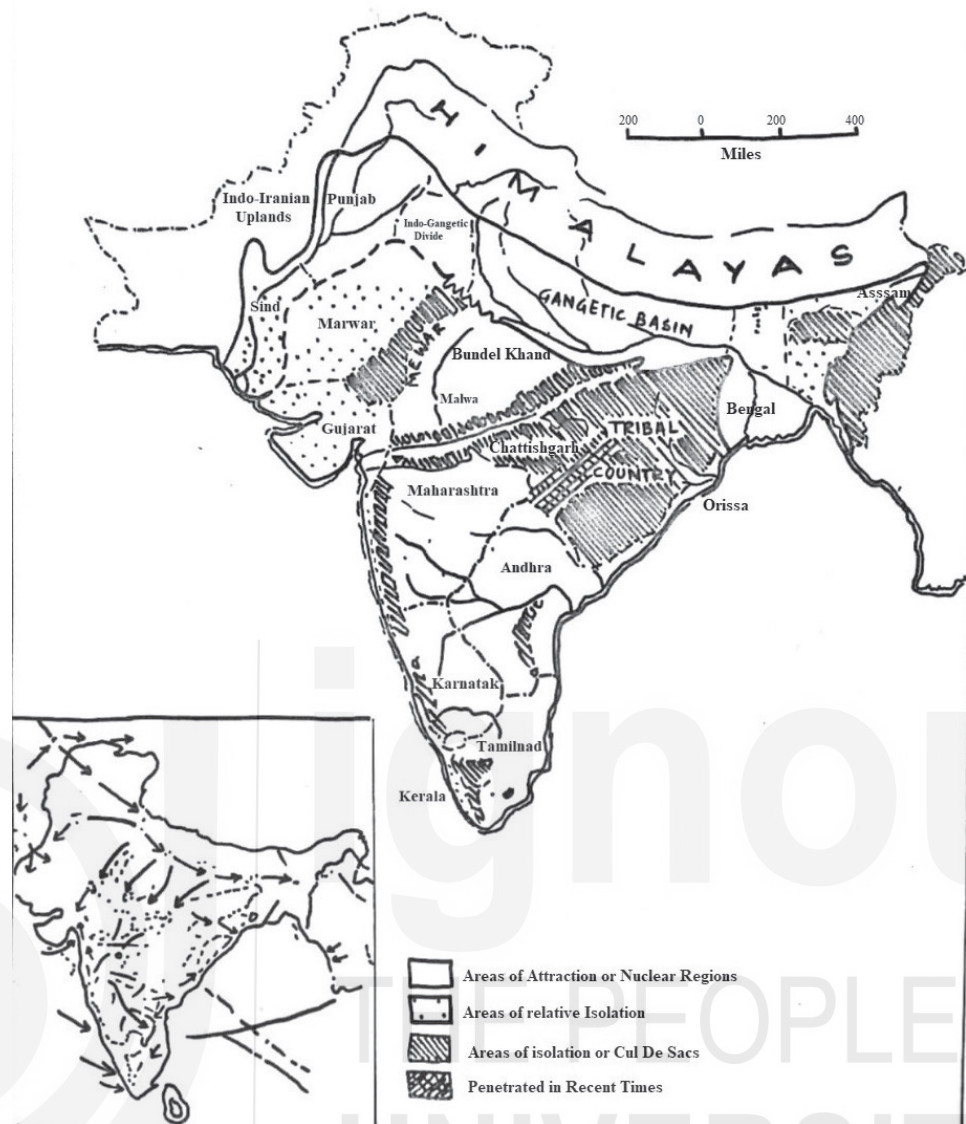


Fig. 17.1: Cultural Map of India by Subbarao.

(Source: Adapted from Bendapudi, S. (1958). *The Personality of India: Pre and Proto-Historic Foundations of India and Pakistan*: Baroda Faculty of Arts, Maharaja Sayajirao University of Baroda)

There is no doubt that the contributions made by Subbarao in mapping the cultural space of India are significant, but his research was primarily based on the evidences provided by the archaeological research and it is very rich and robust in case of the past record. So, there was a need to raise the research to another level based on the fresh evidences made available through other sources. David Sopher's contribution in this regard is worth mentioning here, which we will discuss in the next sub-section.

SAQ I

- Discuss the cultural division of India as devised by Subbarao.
- Highlight the key features of radical materialists.

17.3 SOCIO-CULTURAL REGIONALIZATION BY SOPHER

As mentioned above, David Sopher and Subbarao had attempted mapping the cultural landscapes of India from two different stand points. For Subbarao, the archaeological evidences have made it possible to map the Pre and Proto Historical cultural landscape of India with highly specialised skill in these fields and emphasized on the significance of the local geographical factors in the evolutions of the cultures. For him, the evidences of the past hold the key in mapping the cultures of India. As opposed to this, for Sopher the social facts present in the form of living cultures of various communities inhabiting different regions of India, particularly the indigenous communities, hold the key to map the cultural diversity of India. Moreover, unlike Subbarao, for him the geographical space (pattern) of India is the expression of culture in Indian civilization (Sopher, 1980). He observed that there is a complex socio-spatial order in India that are manifested not in terms of the formal but functional spaces (regions), in which the interaction through space and time creates and sustains whatever formal differentiation is observed (Sopher, 1980). Though, he broadly agreed with the pattern of peopling in India following “Z” pattern and the division of India into “core area” or areas of attraction or perennial nuclear regions in the scheme of Subbarao, yet unlike Subbarao who relied more on the archaeological evidences for the identification of the core areas, Sopher emphasized on the “path of religious movements, the loci of literacy, and artistic ferment, the diffusion of technology and the migration of people for the same. According to him, the Core areas are those in which religious movements arise or take hold, where ferment occurs, where new techniques that are deemed valuable become established, and where economic and political interaction appear to be more concentrated and intense” (Sopher, 1980 p. 291). Thus, he moves closer to Spate in the demarcation of the perennial nuclear regions, which are technologically and economically viable located along the interactions of the major routes, at the terminal of important lines of maritime trade, in the heart of especially productive agricultural lands, or in areas that represent some combination of these elements (Sopher, 1980).

The scheme of regionalization adopted by Sopher is based on the methodology adopted by Subbarao and Spate. In identifying the core areas of the regions, he accepted the economic strength of Spate rather than the cultural logic of Subbarao. But unlike Spate and Subbarao, he divided India into North and South macro level cultural regions. Based on the historical evidences in case of the North, Sopher gave special importance to permeability along the North-Western Borders of India and the existence of areas of isolation (Subbarao) between the North and the South marked by the existence of minority languages/dialects other than Indo-European languages. The dominance of language other than the Indo-European languages to the South of these minority language areas is the core area of South-India Culture and to the North of it is the core of Hindi and its dialects.

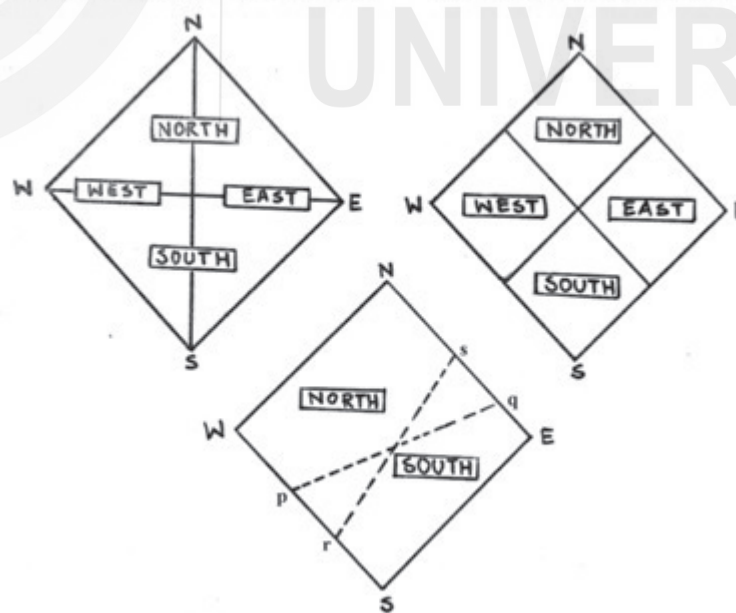
According to Sopher, the Indian cultural realms have been outlined by the mountain rampart in the North, the rhomboidal shape of India tapering into the Indian ocean in the South, the isolation of arid-semi, arid plains and the

forested hills of the Middle India, the integration of the Northern alluvial plains through the arterial trunk that branches out on the plateau of the South, overcoming the barriers created by the hill ranges (Eastern and Western Ghats), and reaching to the Eastern and Western coastal plains have shaped the cultural regions of India. The barriers created by the hill/mountain ranges and the extreme environmental conditions such as the high level of aridity, swamps and marshes, thick forest areas, rugged terrains, and ravines etc., can be identified as “zones of Indifference” (Sopher, 1980p. 292). In between these two extremes lies the “an intervening culture divide”. This divide at different points of time has taken unique nomenclature i.e., between the Aryans and the Mleccha during the first millennium B.C. in relation to Bihar and Bengal etc.

Thus, in his scheme of cultural regions, Sopher identifies two Macro Divisions of India the North and the South as depicted in Fig. 17.2. The Doab and Tamil Nadu are the best connected nodes of the Northern and Southern systems of circulation respectively (Sopher, 1980). The division between the two is marked by “Panch Gaur of the North i.e., the Brahmans of the Northern plain including one from Orissa and Bengal. The Panch Dravida includes the Brahmin from Maharashtra and Gujarat. These two nodal regions are also different in terms of the artefacts like the house types, carts, dress, agricultural systems like plows, soil and oil presses, rice husking devices etc. These also articulate the wet-to-dry climatic spectrum. Apart from highlighting these differences in the material cultures of the North and South, Sopher also tried to map the differences between the two in terms of the position of women, sex ratio etc. The North has males outnumbering the females but as one moves from North, North-West to South, South-East and North-East the females outnumber the males. Therefore, the North is more masculine than the South.

a. Overlapping dichotomies (Cohn)

b. Quadripartition (Mandelbaum)



c. The "North-South" dichotomy

Fig. 17.2: Cultural Regions of India by Sopher.

(Source: Adapted from a chapter 'Geographical Patterning of Culture in India' in Edited Book by Sopher, D. (1980). *An Exploration of India: Geographical Perspective on Society and Culture*, Ithaca, Cornell University Press)

Similarly, the pattern of language and its spread too indicates a North-South division. North India has a predominance of Indo-Aryan branch of languages as opposed to the predominance of Dravidian language to the South of Narmada-Chotanagpur line. The Indo-Aryan Group of Languages were successful in spreading over the fertile plains of Brahmaputra, Surma valley, Sylhet plains and Chittagaon coastal plains, Chhattisgarh basin and coastal Orissa. Sopher mentioned that the contrast between the plains and the adjoining mountains in the North-West in terms of the differential sex ratio could be explained through the intricate balance between the social institutions and the regional ecology. The practice of wet rice cultivation in the plains has greater demand for the women workforce as compared to the societies based on dry-field cultivation and pastoralism (Sopher, 1980). Moreover, he also attributes these factors for “trend of increasing masculinity in the population corresponds in broad outline to the geographical transition from wet to dry, a correspondence whose significance is enhanced by its continuation in Bangladesh and Pakistan” (Sopher, 1980p. 297). Similarly, he also infers the gender differences on the basis of the religious composition of the Muslim and Hindu dominated states and 140 cities. He mentioned that in these states and cities, Muslims are more masculine as compared to the Hindus. However, these differences in terms of religion, language and ecology are less striking as compared to the North-South divide.

The other important factor he highlighted about the cultural geography of India was similar to the claims made by Subbarao, A.L. Basham, Mortimer Wheeler and others about the role played by the “cultural diffusion from the Western Borderlands” (Sopher, 1980). The onset of the Indo-Aryan culture from the North-Western borders of India have played important role in shaping the cultural map of India. According to him, it is this spread which extends to the length and width of the Northern plains reaching up to Assam Valley, Chittagaon coastal plains and Chattisgarh plains, restricted the Dravidian culture either to the hills of the Central India or South of the Tapi-Chotanagpur line and other non-Indo-European languages to the hills of the North-East. An important aspect of these macro cultural trends has been broken by the prevalence of Islamic influences. “There is a rough correlation between the current population of Muslims in the population and the duration of Muslim rule in India, but the deviations are numerous” (Sopher, 1980 p. 302). Moreover, these boundaries are more porous allowing high levels of permeability all along the peripheries following by and large much talked distance-decay model or duration of power over time and space. An equally important aspect of the diffusion of the Islamic culture was from the North Indian Doab to other parts of the country. But, like the hierarchy a characteristic feature of the Hindus in India, the Muslims too were divided into two broad Groups i.e., the Ashraf and the Ajlaf. The former claimed themselves from the noble foreign origin. Included among them are Sayyids: descent from Prophet, Sheikhs: forbearers among the Prophet’s Arab followers, Mughals: descendants of the Turkic origin and the Pathans: the descendants of the conquerors of Afghan origin. The Ajlafs, on the contrary were mostly converts from the existing Hindus and can be identified from their caste names such as Rajputs, Jats and Telis. Since majority of the converts were from the lower castes engaged in different types of crafts: Hajjam (Barber), Qassab (Butcher) and Julaha (Weaver), etc. They were spread over

mostly in the urban centres, while the Ashraf formed the landed aristocracy with emphatic hold over the neighboring urban centre providing patronage to craftsmen.

Apart from the Hindu-Muslim social composition of the Indian society, Sopher indicated that the disparities between urbanisation of Christians and the rest of population decreases as the proportion of Christians in the population increases.

Finally, Sopher attempted mapping the pattern of caste distributions in India. He based his research on the data collected in the last caste census 1931, which indicates that Brahmins constituted less than 2 percent of the total population in areas dominated by Muslim population (Sopher, 1980). The Brahmins have prominence in the triangle of plains and plateau in North India particularly in the rural areas of the Gangetic plains, but the situation changes as one moves to Punjab in the North-West, Southward in the Deccan and Eastward in Bengal (Sopher, 1980). With the exceptions of South Kanara and District Thanjavur, the Brahmins are mostly in the rural areas in south India. Generally, the Brahmins have small landholdings in the rural South India and the only exception is the Kaveri delta where they have large land holdings employing large scale labour force mostly from the untouchable communities. Unlike the situation in North India, the Brahmins in South India are partially isolated from the other communities in the rural areas, so they failed to act as a role model of "Sanskritizing" emulation by others (Sopher, 1980). But it in no way indicates that the Brahmins have a lower social status, as is true in case of fish eating Brahmins of Bengal and non-vegetarian Brahmins of Garhwal and Kumaon.

Thus, the Indian caste system with the Brahmin at the top of the hierarchy follows almost like a trunkline pattern between North and South India. The caste system is more intact in the agrarian economy and it tends to get diluted among the pastoralist communities of the Ahir, Gujar, Yadava and others. Finally, to conclude, Sopher mentioned that "the internal Geography of Hinduism exemplifies the same pattern, that of trunk in two sections, a Northern and Southern. Hinduism itself provides the fundamental definition of India as a cultural space. Although the term "Hinduism" stands for "the religion of the people of India", "the order of derivation should be reversed: India is "Hindudom" (Sopher, 1980 p. 313) guarded by the enduring sanctity of the holy Char Dhams i.e., Badrinath and Kedarnath in the Himalayas, Jagannathpuri on Orissa coast, Rameswaram on sea coast of Tamil Nadu in the south and Dwarka at the western extremity of Saurashtra.

Within these broad contours of the cultural space in India particularly in relation to the double core areas i.e., the North and the South, the porous peripheries, the trunkline, the littoral regions of India particularly the Malabar, the Konkan and the Saurashtra coasts have also been acting porous peripheries providing opportunities to the immigrations of different faiths and religions i.e., Jews, Christians, Muslims, Zoroastrians and others into India. Most of these came either as traders, missionaries or explorers or even invaders at different times and left their imprints on the cultural map of India. Though, these were not powerful to alter the cultural map, yet they were significant enough to introduce change in the orientation of India and its

culture-economy from the North-South India to outward Over-Sea. These were facilitated by establishing the metropolitan outposts such as Calcutta (Kolkata), Madras (Chennai), and Bombay (Mumbai). Consequently in the post-independence India, the orientation of India as towards the centre of gravity to Hindi heartland and West-East division Mumbai and Calcutta emerging as the two core areas. Moreover, the opening of the Suez Canal increased the significance of the west coast and particularly Bombay, which cannot be ignored in the independent India. Consequently, Mumbai emerged as the Gateway to India and continues to dominate the economic space and to a great extent the modern print and entertainment culture popularly known as “Bollywood”.

SAQ 2

Briefly discuss the basis of socio-cultural regionalization of India as devised by David Sopher.

17.4 SUMMARY

In this unit, you have learnt the following:

- Learnt a brief about socio-cultural approaches of regionalization of India.
- Various schemes to delineate the socio-cultural regions of India, along with need and importance of socio-cultural regionalization for diverse purposes.
- Detailed description of socio-cultural regionalization scheme of David Sopher.

17.5 TERMINAL QUESTIONS

1. Discuss the importance of socio-cultural regions.
2. Discuss the external image and imaginations about the Socio-Cultural Space(s) in India.
3. Highlight the difference between the basis adopted to delineate the socio-cultural regions of India by two eminent scholars namely Subbarao and Sopher.

17.6 ANSWERS

Self-Assessment Questions (SAQ)

1. a) Subbarao divided the socio-cultural regions of India into three types. These are areas of attraction, areas of relative isolation and finally areas of isolation. Refer to Section 17.2.
b) It refers to the approaches as discussed by R.P. Dutt and Bhagat Singh who tried to identify a common thread across the history of human kind and postulated that Class struggle has been the mover of history everywhere and India is no exception. Refer to Section 17.2.

2. One of the prominent bases to divide the India into socio-cultural regions include social facts present in the form of living cultures of various communities inhabiting different regions of India. It particularly refers to the indigenous communities that provide a key to map the cultural diversity of India. Refer to Section 17.3.

Terminal Questions

1. Briefly include the crux of socio-cultural approaches and regions for highlighting their importance with suitable examples. Refer to Section 17.2.
2. While answering this question, discuss the external image of India by describing the exoticist, the managerial and the curatorial images. Refer to Section 17.2.
3. To answer this question, briefly highlight the differences between the bases adopted by two scholars. Refer to Section 17.3.

17.7 REFERENCES AND SUGGESTED FURTHER READING

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ECONOMIC APPROACH

Structure

18.1	Introduction	18.4	Economic Regions of India
	Expected Learning Outcomes	18.5	Summary
18.2	India: A Brief of Economic Regions	18.6	Terminal Questions
		18.7	Answers
18.3	Schemes of Economic Regionalisation of India	18.8	References and Further Suggested Reading

18.1 INTRODUCTION

In the previous Units 16 and 17, you have learnt about physiographic regions and socio-cultural regions along with their regionalisation schemes as propounded by various eminent scholars in detail. You have understood the importance of physiographic and socio-cultural regions for the interplay that takes place between humans and physical environment. This last Unit 18 of Block 5 is devoted to the study of economic approaches to the Geography of India. You will learn and understand the importance of economic regions of India for the growth and development of economy, society and nation.

In this unit, we will discuss new important economic approaches as devised by eminent scholars. We will begin the Unit by discussing briefly various concepts used to define and identify economic regions in Section 18.2. Then, we will describe the myriad aspects associated with various types of economic regions and regionalisation schemes in Section 18.3. Last Section 18.4 briefly describes Economic Regions of India. This unit should equip you to comprehend various approaches used for identifying economic regions of India and their importance.

Expected Learning Outcomes

After completing study of this unit, you will be able to:

- understand economic regions;
- comprehend the economic approaches to the Geography of India and its regionalisation;
- comprehend the schemes of economic regionalisation of India; and
- recognize the significance of economic regions.

18.2 INDIA: A BRIEF OF ECONOMIC REGIONS

Before proceeding to study economic dimension and its spatial aspects in the Geography of India and its regionalisation, we will discuss brief background of the factors those help to shape economic regions. This will help you to understand and appreciate significance of economic regions for the holistic development of human communities, society and nation altogether.

India is said to have an agrarian economy, largely employing great volumes of its natural assets which include land, water, natural vegetation and animals. Alongside it involves the use of human resources with the utilisation of traditional knowledge, genetic resources and indigenous technologies. Due to the vastness of India's geographical space, it is endowed with enormous diversities in terms of the environmental determinants of its agriculture. It also has equally high levels of socio-cultural pluralities in terms of the use of plants and animals, food habits, dress, rituals and customs along with relatively longer growing season for agriculture in most parts of the country. Thus, it is natural that its predominantly agrarian economy also epitomizes different shades of diversities in its environmental attributes and pluralities of its cultural mosaic. However, it would be over generalisation to conclude that Indian agriculture constitutes an undifferentiated economic space. On the contrary, the Indian Agriculture is regionally diverse and socio-economically differentiated along with high levels of social disparities. There are regions that have developed agriculture like plantations and areas of successful green revolution on the one hand and areas of subsistence extensive agriculture in arid and semi-arid areas and *Jhoom* (shifting) cultivation in hill states of the North-East on the other. The social distribution of agricultural land if taken as an indicator of social disparities, then it is a well-established fact that there are large farmers with above 7.5 acre of land, they account below 1 percent of the total landholding, but own more than 40 percent of the total agricultural land. At the other extreme are cultivators and farmers with landholding of below 0.5 acre, they account for above 50 percent of the total households and own below 10 percent of the total agricultural land. Over and above, there are landless agricultural labourers depending for their livelihood on agriculture. Moreover, the Indian agriculture has always maintained a strong interface with industry and other sectors of economy i.e., trade, transport and services along with the modern quaternary and quinary sectors particularly information technology.

India taking advantage of its geographic locations extending from the evergreen equatorial biomes in the islands in Bay of Bengal to arid conditions in Thar desert in the West to Alpine vegetations in Himalayas including cold desert conditions in Ladakh in extreme North, the geographical space of India is endowed with rich natural diversity. Most significant features of its rich environmental endowment are humid climate and fertile alluvial soils providing favourable environmental conditions for paddy and jute cultivation with strong interface with rice-based food processing industry and jute fibre processing industries in lower Gangetic plains. Lower Gangetic plains and particularly Bengal Delta was once well-known world over for its jute production and jute industry. Similarly, the fertile plains of North and North-Western India with climate varying from sub-humid to semi-arid conditions and endowed with

well-developed canal and tube-well based irrigation systems have been traditional heartland of wheat and sugarcane cultivation, and of sugar industry along with cotton and woollen textile industries. Furthermore, the black soil regions of Central and Western India with moderate rainfall varying between 75 to 100 centimetres are known for cotton cultivation and cotton industries. The old alluvial soils in North-Bengal, Brahmaputra and Surma valleys in the Northeast with moderate to high rainfall and frost-free winter months have contributed to the growth of tea plantations and tea processing industry. Similarly, the littoral regions of Peninsular India have provided suitable environmental conditions for coconut, rubber, banana and tapioca plantations and related industries.

Mountains and hills are endowed with severe winter to moderate summer seasons and picturesque natural settings. Thus, these provide ideal environment for the growth of horticulture, tourism, fruit processing and wood and wool based crafts and industries. The Western arid and semi-arid regions with severe summers and deficit rainfall combined with rocky terrain in some places provide ideal ambience for stone quarrying along with animal husbandry and exotic tourism. Vast areas comprising different plateaux within the larger Deccan plateau are rich in terms of mineral resources. These have got specialised in mining and development of mineral based heavy industries and industrial complexes. The extensive borderland in the North and North-Eastern India has stringent environmental constraints along with limited land for cultivation and shorter growing season. Here, numerous communities have adapted themselves by adopting mixed farming practices i.e., extensive subsistence agriculture combined with pastoralism, hunting, gathering and quarrying. In North-Eastern region, Jhuming (a form of slash and burn shifting agriculture) is the dominant mode of subsistence farming particularly in Arunachal Pradesh, Nagaland, Manipur, Mizoram, Meghalaya and in hill districts of Assam and Tripura. Rich biodiversity along with equally diversified and resilient socio-cultural traditions in these border areas have also seen preservation of traditional skills and knowledge system in the form of traditional handicrafts based on agricultural and forest resources. Mekhela Chador of Assam, Naga, Mizo, Manipuri, and Karbi shawls, Manipuri quilts, Khasi knives and iron implements along with numerous handicrafts are some of the well-known artefacts those show culture-economy-environment synthesis of these regions. It is largely due to their rich socio-cultural heritage and biodiversity that these regions have emerged as favoured destinations for tourism such as for heritage, eco-tourism, adventure and cultural tourism. This has resulted in the development of hotels and other tourism related industries. Moreover, fast flowing perennial streams and rivers originating from Himalayan glaciers also provide rich renewable energy resource base. Development of Multipurpose River Valley projects such as Bhakra-Nangal, Ranjit Sagar, Tehri Dam and Dams on Tista, Kameng and Subansiri, etc., are some important aspects of the resource development. In the absence of some of these natural advantages, hills, and plateaux of Central and South India have development of multipurpose river valley projects that have been developed by constructing dams on rivers to meet increasing demand of energy. Some of the important multipurpose hydroelectric projects included, Damodar Valley projects, Almatti Dam, Chambal River Valley project, Nagarjuna Sagar, Jayakwadi Dam and Hirakud project, etc.

On the basis of the forgoing discussion, it can be said that India, which was colony for over two hundred years before 1947, has made spectacular development in almost all spheres of its economy and society. However, given the rich endowment it has in terms of natural and human resources, it can hardly be called satisfactory. Scholars have discussed the trajectory of the path of India's economic development and have identified some of the following reasons for its lackadaisical outcomes:

1. The colonial impediments;
2. Balancing growth, distributive justice and balanced regional development;
3. Choice of democratic and decentralised governance; and
4. Imperatives of choice/option in transfer of technology for development.

1. The Colonial Impediments: According to some of the prominent nationalists in India, colonization of India leading to ruthless exploitation of its toiling masses and drain of wealth were the main causes behind rampant poverty in India. The exploitation and domination were not limited to economic and socio-political aspects only. On the contrary, the colonizers also introduced large scale distortions in India's economy in terms of raising hierarchies of middlemen between the direct producers and consumers. More often, the producers were also consumers but only after the mediations of the large ranks of middlemen. According to Soviet economic historian Levkovasky, there were nearly 26 middlemen one-way between the cotton producers of Maharashtra and the factory in Manchester-Lancashire and same was the case when finished products reached to the cotton growers in Maharashtra. The situation was not much different in case of other commodities. These hierarchies of middlemen didn't only form the core of exploitative mechanism but they were also deeply embedded into the administrative structure created for the destruction of indigenous industries and skills, maintain law and order, and consolidate hold over India by raising armies of loyalists to the administration in the form of tertiary sectors. Such developments according to the scholars from dependency school such as Frank, Amin, Laclau, Hamza Allavi and Ranjit Sau etc., placed India on the path of underdevelopment. It was characterized by predominance of subsistence agriculture dotted with highly specialised export-oriented plantation agriculture, conspicuously either non-existent or weak manufacturing/secondary sector and relatively strong tertiary sector. Some of the important adverse ramifications of these colonial policies were deindustrialisation, de-urbanisation and deskilling of its entrepreneurial classes and workers particularly in urban areas and promotion of absentee-landlord-rentier classes and landless agricultural workers in rural areas. These distortions became the legacy of colonial inheritance in independent India, which in turn created multiple impediments in the reconstruction of the society and economy.

2. Balancing Growth, Distributive Justice and Balanced Regional Development: There are little doubts over the adverse impacts of colonial rule in India and scholars have made valuable contributions in foregrounding these repercussions. Moonis Raza and Budhayan

Chattopadhyaya and Irfan Habib, etc., highlighted the nature and magnitude of regional imbalances created by the colonizers. According to them, there were developed metropolitan out-posts at the port towns/cities such as Bombay (Mumbai), Calcutta (Kolkata) and Madras (Chennai) with strong forward linkages in the world market and weak backward linkages with the hinterland. These were directly linked to the raw material producing regions of cotton, jute, cane-sugar, tea, iron ore, coal and petroleum etc., within the country through cantilevered suction mechanism; other than these trickles of fringe benefits, their backward linkages with the hinterland and rest of the economy were conspicuously absent.

The task of undoing these distortions was/is definitely a time taking exercise but, once these get added to other imperatives of development such as achieving growth with social distributive justice and regional balance, then the task becomes more daunting than what can be easily spelt out. Moreover, it is a well-known fact that the exclusionary and hierarchical economic and social spaces prevalent in India have survived over centuries and surprisingly the same got further consolidated even through external influences. Consequently, the benefits of progress were always cornered by a tiny minority at the cost of vast majority, which in turn created affluence in a few social classes/groups and areas surrounded by vast oceans of socio-economic poverty, exclusions and regions of marginalisation.

3. **Choice of Democratic and Decentralised Governance:** It has been mentioned before that India's independence was marked by a crucial juncture in the world history. It was the end of World War-II, defeat of autocratic and fascist forces, liberations of colonies from age-old colonial domination leading to the rise of sovereign nation states and planning as a viable model of development not only for economic and social development but also as an effective strategy against another global war in future. This juncture also opened two options before India to map its future course. There was a time-tested path of free market economy being pursued by the western democracies, characterized by unrestricted individual freedom combined with fierce competitions for market in search of raw material and avenues of higher profits. India with its poor competitiveness could ill afford to venture into this tough path. On the contrary, it was well aware of the pitfalls of this path and benefitted from the rich experiences of countries like Philippines in preserving its sovereignty and national independence. It is a known fact that Philippines had a misfortune of getting freedom five times and lost it six times. Moreover, India's commitment to the principles of *Panch-Sheel* for establishing World peace made it difficult to venture into this path, where economic competition leads to political rivalry and ultimately wars.

The second option available for India was to follow the centralised plan model of the Soviets. Lack of democracy, over centralisation of power and limited incentives for new entrepreneurs too made it difficult for India to venture into this path. Consequently, India evaluated its options and adopted a model of democratic governance characterised by building partnership between the leading state sector and free private

entrepreneurs, which was popularly known as the mixed-economy model of development. Apart from other things, this model was also critical of the free-market economy marked by numerous choices within an overall vacuum of options. Similarly, it also critiqued and provided an alternative to centralised planning for its total vacuum in terms of both i.e., choice and options. It was a model of advocacy of finding options not between the free-market economy and centralised planning but between top-down and bottom-up planning or between representational and grassroots level democratic planning.

- 4. Imperatives of Choice v/s Option in Transfer of Technology for Development:** It has been mentioned before that the colonization of India had far reaching repercussions. One among these was de-skilling of its working population and lack of heroism among the entrepreneurs to take risk for new innovations, thus, leading to their total dependence on imported technologies, which were mostly outdated in a highly discriminatory monopolistic market. Thus, as a dependent partner in the world market, door for better options were always closed to India. So, it had to choose from the least outdated and obsolete technologies. Moreover, lack of concerns about the suitability of given technologies to diverse environment and cultural pluralities in India too added its share of difficulties in yielding the desired returns from imported technologies.

The cumulative impacts of all these factors didn't only result in strengthening bonds of dependencies of India on developed countries, vulnerable to the pulls and pressures of the world market and laggard in the field of technological innovations, but also in the emergence of fuzzy economic spaces. It is primarily in the backdrop of these opportunities and limitations that the scholars and institutions have tried delineating economic regions of India. Some of the well-known schemes of economic regionalisation have been evolved by the Planning Commission of India, Daniel Thorner, P. Sengupta and Galina Sdasyuk, Ashok Mitra, National Bureau of Soil Survey and Land use Planning and Indian Council of Agricultural Research, etc. However, for the purpose of the present study, only two studies have been discussed in some details.

SAQ I

- Briefly discuss about the colonial impediments.
 - List out the four major reasons of lackadaisical outcomes of India's economic development.
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18.3 SCHEMES OF ECONOMIC REGIONALISATION OF INDIA

Many scholars have propounded several approaches to define economic regions of India. We will discuss important approaches to provide you a clear idea for appreciating the criteria used to define economic regions of India. This will also facilitate you to better appreciate the previous two schemes,

which provides a background for the enactment of various kinds of economic activities as per the specificity and constraints of region under study.

Ashok Mitra selected the indicators for finding the economic regions of India on the bases of levels of development for which he had selected the indicators (Sdasyuk, G. and Sengupta, P. 1961 and Mitra, A. 1965). These were mostly based on the Census of India 1961.

1. Ashok Mitra

Ashok Mitra, one of the last members of the Indian Civil Services (ICS), Registrar General and Census Commissioner, Government of India 1961, a distinguished critique, a renowned demographer, and social scientist was among the pioneers, who formulated a scheme of economic regionalisation of India. He, by virtue of his rich administrative experiences and as Census Commissioner of India, had direct and first-hand access to rich and diverse information available at district level. But, his over obsession with the data and facts generated by the state and its agencies and lack of enthusiasm for the diversity of natural features have made his regionalisation exercise lopsided in favour of the social facts, administrative rationality and convenience in applying simple statistical techniques for standardizing complex social features at the cost of physical features. These were also reflected in his scheme of economic regions of India, which he thought holds key to the success of planned development of India under the Five-Year Plan based on the following assumptions (Sdasyuk, G. and Sengupta, P. 1961 and Mitra, A. 1965):

1. Natural regions have created diversity and exclusiveness in the life, thought and activities of India for long time.
2. The aims of Indian plans should be to level the impacts of these natural factors that divide the country into natural regions and sub-regions and shelter an immense variety of cultural and economic organizations.
3. India is witnessing an interesting interplay of dialectical processes. There are some social and economic forces that want unity but they have to deal with the diversity of natural regions, sub-regions, economic situations, cultures and languages etc.
4. There is an urgent need to rework the scheme of natural regions.
5. Districts are the ideal units for identifying regions because the level of diversity is subordinate to the compulsions of economic and administrative unity at the district level.
6. Ranking method is the most ideal for classifying natural regions based on additional features like stages of cultural, social and economic achievements.
7. The strength of ranking methods justified by regrouping the districts has been on the basis of affinity in terms of economic and social development and simply on the basis of similarity in terms of natural features.
8. The scheme should be dynamic leaving adequate scope for accommodating the specificities.

9. He favoured ranking instead of hierarchy because the former is dynamic as compared to rigidity on the later. Therefore, his scheme of regionalisation is also called 'Levels of Regional Development'.

Based on these assumptions, Ashok Mitra developed a scheme of economic regionalisation of India by ranking the groups of indicators which he named as 'Block of Indicators' at district level as given below:

Block – I General Ecology: Indicators included within this block were further sub-grouped as under:

- a. **Geological Features, Topography:** Physical features, rivers and streams, drainage and slope, altitude range: maximum and minimum rainfall, house-types: types of buildings by wall and roof material, language: numerically major language; name and percentage to total population, Scheduled Tribes: name and strength of major Scheduled Tribes where the number exceeds 10,000 each and Scheduled Castes.
- b. **Soils:** Local names and types of soils and incidents of revenue, Crops: Food crops with percent of area under each crop limited to 5 percent and above of the Gross Cropped Area (GCA), Cash Crops; with percent of area under each crop limited to 5 percent and above of the GCA, Yield of clean rice per standard acre in mounds.

Block – II Agricultural Infrastructure

- a. Area under double crop as percentage to NSA.
- b. Gross Irrigated Area as percentage to Gross Cropped Area (GCA).
- c. Households cultivating 0-5 acre as percentage to total cultivating households (to measure built-in depressor in Indian agriculture).
- d. Pure tenancy holdings as percentage to all cultivating households (to measure built in depressor in Indian agriculture).
- e. Hired attached workers percent to all workers as cultivators (to measure the growing market relations in agriculture).
- f. Cultivators and agricultural labourers per 100 acres of Net Sown Area (NSA).
- g. Cultivators and agricultural labourer's percentage to total working populations.

Block – III Participation Rate in Traditional Sectors

- a. Male participation rate in 1961.
- b. Female participation rate in 1961.
- c. Male workers in agriculture as percentage to total male workers in 1961.
- d. Single and family workers in non-agricultural sector percent to total non-agricultural workers in 1961.
- e. Workers in household industry percent to total working population in 1961.

Block – IV Potentials of Human Resources

- a. Person per square mile.
- b. Female per 1,000 males.
- c. Rural population per 1,000 of total population.
- d. Percentage increase in total population from 1951 to 1961.

- e. Immigrants per cent to the total population in 1961 (to measure the pull factor).
- f. Children 0-4 percent of women aged between 1-44 age groups (to measure the capacity of population to multiply).
- g. Crude literacy rate 1961 (measures of cultural and technological advancement).
- h. Percentage of Scheduled Tribe population to total population in 1961.
- i. Percentage of Scheduled Caste population to total population in 1961.

Block – V Distributive Trade, Manufacturing and Infrastructure

- a. Workers in retail trade per 1,000 populations.
- b. Workers in manufacturing per 1,000 populations.
- c. Census houses used as business houses or offices per 1,000 of all census houses.
- d. Census houses used as community centres per 1,000 of all census houses.
- e. Census houses used as restaurants and eating houses per 1,000 of all census houses.
- f. Census houses used as rest houses per 1,000 of all census houses.
- g. Census houses used as schools per 1,000 of all census houses.
- h. Census houses used as medical institutions per 1,000 of all census houses.
- i. Miles of surface road per 1,000 square miles of area.

Block – VI Organised Industrial Activities in Modern Sectors

- a. Establishments run on electricity as percent of all industrial establishments.
- b. Workers engaged in registered factories to percentage of all workers.
- c. Degree of congestion in housing.
- d. Whether headquarter town: i) Generates own electricity, ii) Is connected to grid or iii) Both or none?
- e. Industrialisation in organized sector, five industries graded according to declining ratio.

Ashok Mitra used the methodology based on ranking of the districts, then dividing them into quartiles and each quartile was further split into two equal halves as far as possible. He divided all the districts of India as per 1961 census into four quartiles and each quartile was further sub-divided into two sub-divisions.

2. P. Sengupta and Galina Sdasyuk

P. Sengupta and Galina Sdasyuk were enriched by their first-hand experience of the centralised planning model under the Soviets and became part of Nehruvian model of socialist planning in India. It was not a copy paste approach of regional planning, primarily because of the contextual and the textual differences in the two countries. Unlike Russia, India had been a colony and was subjected to secular distortions and disarticulations in its socio-economic and regional structures. The situation was further aggravated by the partition of India on communal lines resulting into displacement and killing of millions during the partition related communal violence on the one

hand and separation of ports and their hinterlands by the political boundaries of two sovereign independent nation states on the other. The adverse impacts of Chittagaon and Mongla Ports in the east and Karachi in the west were very significant in this respect. Thus, they were well aware of the opportunities as well as the challenges and convinced that planned development holds key to the solution of problems related to displacement, poverty, illiteracy, regional disparities, social conflicts, rupture in the port-hinterland relations and dependence on the world market etc. Similarly, they were also well acquainted to the main contextual differences between Russia before the October Revolution and India after independence and partition. Unlike total negation of pre-revolution social formation by Soviets in USSR, India had a daunting task of venturing into continuity and changes in its social and regional structures. Apart from these differences, there were many similarities between Russia and India. Both had marked regional disparities. European part of Russia was more developed while eastern and northern parts were very backward. In case of India, with the exception of a few developed metropolitan outposts and enclaves, large parts of India were very poor. Similarly, both were at par in terms of the magnitude of poverty, social inequalities and regional disparities. These were some considerations which have contributed in forming and articulating economic regionalisation of India, which they spelt through their general observation as a preface to Economic Planning.

General observations:

1. The regional structure created under the colonial rule to facilitate the drain of resources from India changed after the construction of multipurpose river valley projects, referred as the temples of modern India by India's First Prime Minister, Pt. Jawaharlal Nehru.
2. The most significant change to a predominantly agrarian economy was observed in changing cropping patterns and choice of crops.
3. State sponsored land reclamation policy changed the choice of crops as well as regional agricultural specialisations.
4. The most noticeable change (increase) was employment in agricultural sector, which in turn expedited the process of internal migration to regions practicing modern agricultural practices.
5. Acceleration in the growth of heavy industries and energy sectors under the public sectors with foreign collaborations have proved to be the most dynamic factors in India's economic development. It also changed the process of region formation (it was broadly based on N.N. Kolosovsky's concepts of five important production complexes: pyrometal, ferrous, non-ferrous, petroleum and gas as energy cycles).
6. Initially, economic region formations in India were in conflict with the consolidation of linguistic states, but with the interventions of state, these linguistic states have contributed in economic consolidation.
7. For rapid progress India needs territorial economic unity i.e., rational geographic division of labour among linguistic states.

8. Over hundred years' struggle for right of self-determination have helped India in making itself qualitatively different from the other colonial and post-colonial countries.
9. New market relations have developed in Indian agriculture.
10. India is on the path of capitalist development and capitalist development has made deep inroads in its industrial, agriculture as well as mineral-based industries.
11. India's dependence on colonial structure has increased both market and technology.
12. Key industries like basic and heavy industries, machine building, metallurgy, oil mining and refining and petrochemical industries were either absent or very weak in India.
13. There were tendencies of gradual centralisation, yet industrial development in India is characterised by super concentration around Calcutta (Kolkata) and Bombay (Mumbai).
14. India's economy particularly its agriculture and mining are primarily export oriented.
15. Coastal regions have well developed economic base and infrastructure but very weak backward linkages.
16. Large part of the interior regions either remained unaffected or got negatively impacted as far as development was concerned, particularly in relation to geographical division of labour.

Based on these general observations, they formulated the following general principles for delineating Economic Regions in India. These are both the principles and methods of Regionalisation used by P. Sengupta. However, the author did mention some specific methods for delineating the economic regions, which has been discussed under a separate sub-heading in this Unit.

1. Production specialisation should be the base for regionalisation in Economic Planning.
2. The Economic Planning and delineation of economic regions should be based on thorough understanding of the natural regions with endowment of resources. It is an imperative to avoid duplication and promote co-operation among different branches of the economy.
3. The delineation of economic regions should be based on within the fabric of natural regions and sub-regions.
4. The most effective way for the success of the economic planning is bottom-up approach. Meaning thereby, delineation of the Micro-Regions should initiate the process of delineation of other regions up in the hierarchy: a) Micro Regions should coincide with single or multiple resources areas according to their distribution, b) Meso-Economic Regions should always be multipurpose units with production specialisation of national, regional and local importance, and c) Macro Economic Regions must show potentiality in production cycles of national importance in more than one and it should justify its existence by self-sufficiency in food requirements.

5. Micro level planning regions should coincide with administrative boundaries like tehsil/police station.
6. Meso-Economic Regions should merge out of the micro-units combined together as an area similar in terms of physical resource base.
7. Macro-Economic Region should be delineated by combining meso regions and as far as possible should coincide with state boundaries.

Based on these seven principles, they identified following economic regions of India as discussed in Section 18.4.

SAQ 2

Briefly highlight the seven principles adopted by P. Sengupta and Galina Sdasyuk in their approach of economic regionalisation of India.

18.4 ECONOMIC REGIONS OF INDIA

Natural Resources Regions or Economic Regions of India: Since the purpose of delineating the Economic Regions was to achieve economic development in order to reduce regional disparities and social inequalities through planned development, the scholars emphasised on giving equal importance to natural and human resource endowment of India. So, they postulated identification of Natural resource and population regions of India as depicted on Fig. 18.1.

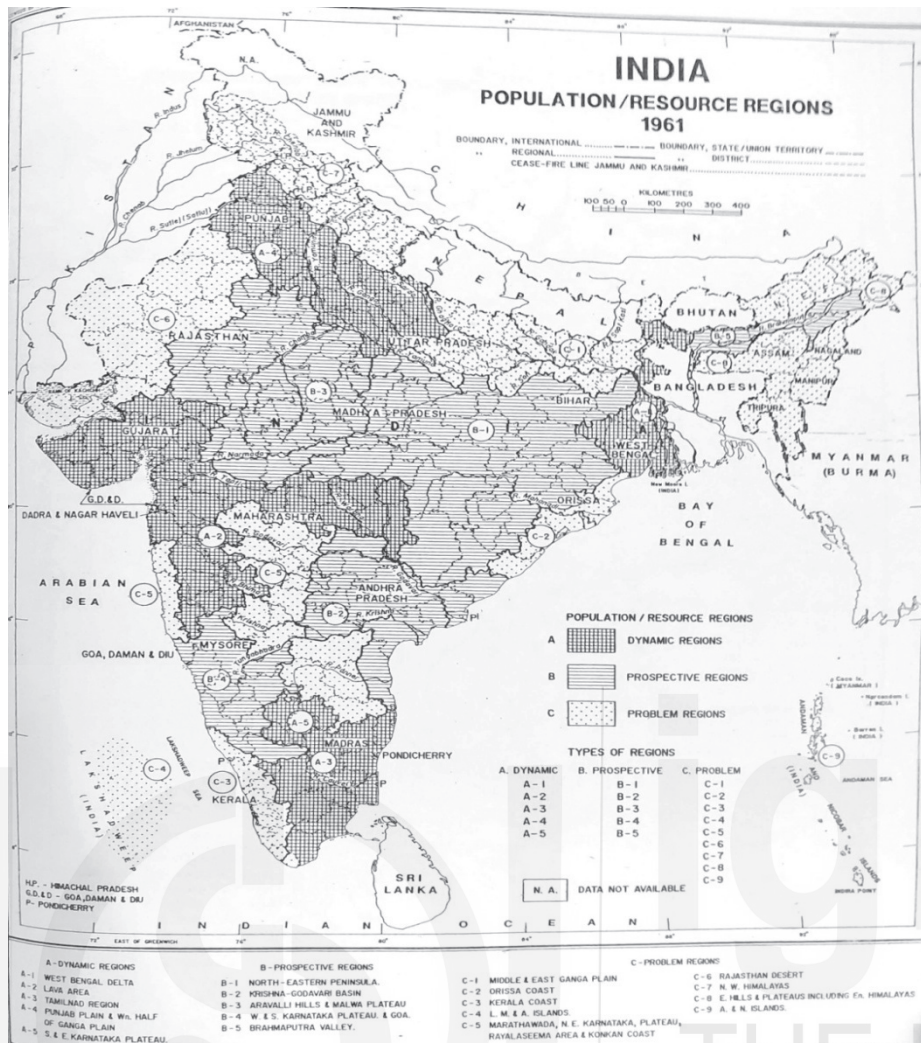


Fig. 18.1: Population/Resource Regions.

(Source: Sdasyuk, G. and Sengupta, P. (1961). *Economic Regionalisation of India: Problems and Approaches*, Census of India Monograph No. 8., New Delhi, Government of India)

Population/Resource Regions of India was taken as the basis for delineating the planning regions as shown in Fig.18.2.

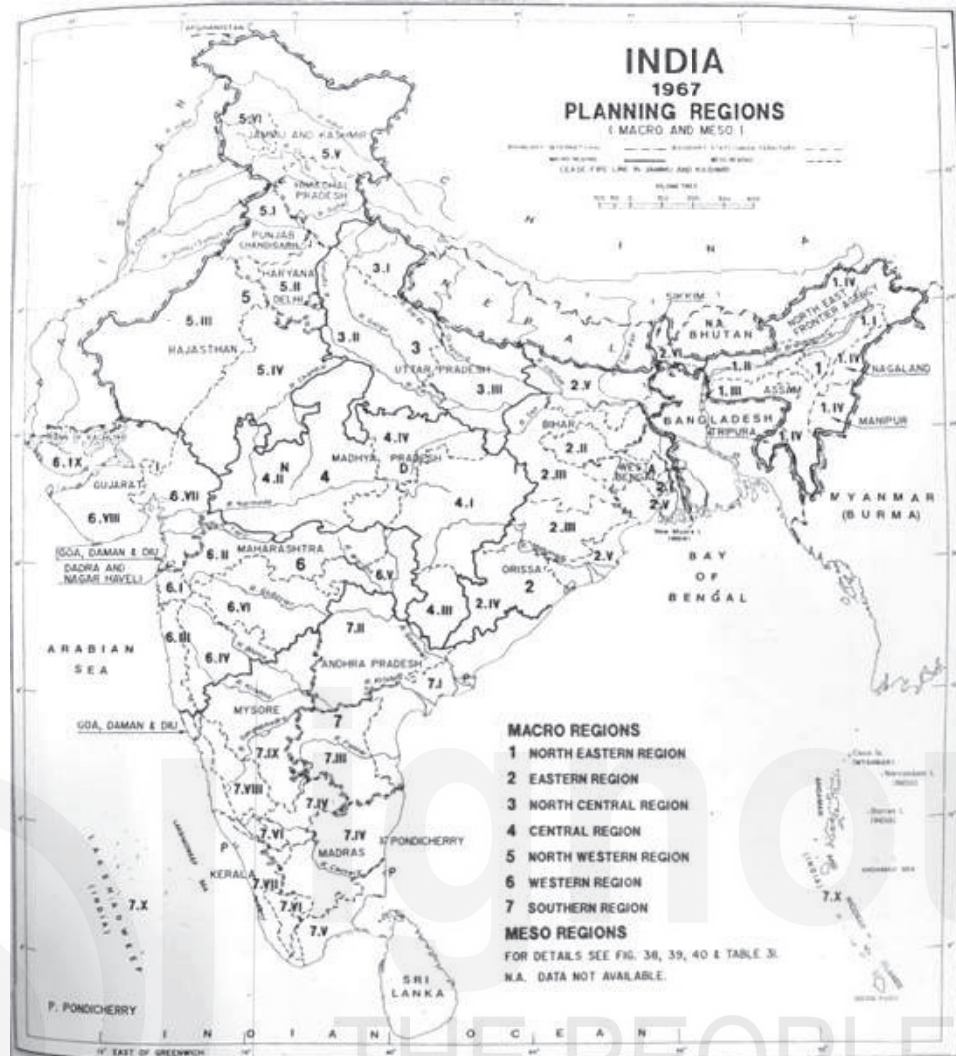


Fig. 18.2: Planning Regions.

(Source: Sdasyuk, G. and Sengupta, P. (1961). *Economic Regionalisation of India: Problems and Approaches*, Census of India Monograph No. 8., New Delhi, Government of India)

However, the structure of planning was within the broad framework of territorial association of natural resources with Natural Regions. Five Natural Regions were identified. The identification of the Economic Regions was done on the bases of the following criteria:

- a. Physical characteristics;
- b. Natural resource characteristics; and
- c. Evaluation of aggregate natural resources and potential economic growth.

The following Natural Resource Regions were delineated as follows:

1. The Great Mountain Wall:

A. Western Himalaya:

- i. Kashmir: Karakoram Ladakh, Zaskar, Great Himalaya and Pir Panjal.
- ii. Panjab-Kumaon: Himachal, Garhwal and Kumaon.

B. The Eastern Himalaya:

- i. Darjeeling-Sikkim and Arunachal Pradesh.

- ii. Eastern Hills (Nagaland, Manipur and Mizoram), and Eastern Plateau (Karbi-Anglong and Maghalaya Plateau).

2. The Great Plain:

- i. The North Western Plain
- ii. Upper Ganga Plain
- iii. Middle Ganga Plain
- iv. Delta Plain
- v. The Assam Valley

3. Peninsular India:

- i. North Western Peninsular Plateau: Aravali Hills, Chambal Basin, Bundelkhand Upland, Malwa Plateau and Vindhyan Scarpland.
- ii. North-Eastern Peninsular Plateau: Baghelkhand Plateau, Chattishgarh Basin, Bastar Plateau, Odisha or Eastern Ghats and Chotanagpur Plateau.
- iii. Maharashtra Plateau and its annexe; Western Ghats, Lava Plateau and Wainganga Valley.
- iv. Karnataka Plateau: Malnad and Maidan.
- v. Andhra Plateau: Telangana and Rayalaseema.
- vi. Tamilnadu Plateau: Western Ghats, Plateau and Hills.

4. Coastal Plains:

- i. West Coast: Kathiawar Peninsula, Gujarat Plain, Konkan Coast, Karnatic and Malabar Coast.
- ii. East Coast: Tamilnadu, Andhra Pradesh and Orissa.

5. Islands:

- i. Andaman and Nicobar in Bay of Bengal.
- ii. Lakshadweep and Minicoy in Arabian Sea.

As mentioned before, identification of the economic regions of India was based on the availability of the new Census of India 1961, which was one of the most detailed enumeration encompassing not only the socio-demographic accounts of the population including streams of migration, settlement and family types but also the cultural aspects like mother tongues, religion, marital status, economic aspects, particularly landholding and natural aspects, such as temperature and precipitation, etc. These aspects were particularly significant for the scheme suggested by Ashok Mitra. Galina Sdasyuk and P. Sengupta too used these new data but their special emphasis was on the relevance of the regional and Economic Planning developed in the USSR particularly the scheme developed by N. N. Kolosovosky's concept of Territorial Production complexes. However, adequate precautions were made to accommodate the textual and contextual differences that existed in both the countries.

On the bases of these physiographic divisions of India, they suggested the following typology of Physio-Resource Regions on the basis of the following three characteristics: physical, natural resource and evaluation of aggregate natural resource potentials for economic growth:

1. Alpine Desert Type, 2. Western Himalayan Type, 3. Eastern Himalayas,
4. Eastern Hills, 5. Gneissic Hill & Plateau- North-Eastern Peninsular type, 6. Gneissic Hills and Plateaus – Tamil Nadu Type, 7. Gneissic hills and Plateaus Bundelkhand Type, 8. Gneissic Hills and Plateau Aravalli Type, 9. Gneissic Hills and Plateau Rayalaseema Type, 10. Lava Ghat Type, 11. Lava Plateau Type, 12. Alluvial Plain – Riverine Type, 13. Alluvial Plain Coastal Type and 14. Desert Plain.

According to them, the other contributing factors in the formation of economic regions are, population characteristics and levels of resource development with the following characteristics:

Population Characteristics:

- a. Dynamic rural and urban settlements: Degree of over population.
- b. Characteristics of internal migration.
- c. Population resource regions: Three characteristics: Dynamic region: Deltaic plains of West Bengal; Prospective regions of North-East Peninsula; Over populated Middle Ganga Plain.

Characteristics of the dominant sector of the economy i.e., Agriculture and its regions are as under:

Agricultural Regions:

- a. Himalayan zone
- b. Dry zone
- c. Sub-humid zone
- d. Wet zone

Industrial Regions

Indicators:

Trends in the location of Energy and Heavy Industries: Coal, Oil, electricity (thermal and hydro-electricity), Iron and Steel, non-ferrous metals, chemical (inorganic chemicals and organic chemicals).

Growth of Industrial Energy Complexes is the basis of formation of Economic Regions:

North-Eastern Region (IISCO, TISCO)

Western Region (Maharashtra and Gujarat)

South India (Madras, Mysore, Kerala and Andhra Pradesh)

New Economic Regions (Interiors of India: Punjab, Bhilai, Uttar Pradesh and Chambal-Kota).

Transport regions

Indicators

Intensity and magnitude of freight traffic and growing economic links:

1. Export-import traffic centring around the metropolitan Centres, mostly for export purposes.

2. Fast developing inter-regional transport regions
3. Intra-regional transport economic links
4. Intra-state transport economic links
5. Industrial regions
6. Metropolitan cities other than the ports.
7. Linking of villages to national market.

Taking all the above-mentioned considerations into account, they evolved the method of economic regionalisation along with the eight principles:

Methods:

1. Primacy of production specialisation.
2. Economic regions should be based on sound understanding of natural resource endowment.
3. Identification of hierarchy of natural resource regions.
4. Economic regions should start from the bottom: micro regions should be equal to single resource area. Meso region should be always multipurpose production unit. Macro region should have the potentials of processing a production cycle of national importance.
5. Regional boundaries at different levels should not cut each other.
6. Higher order regions should be formed after combining power order regions.
7. Special role of planned production in the formation of Economic Regions.
8. Continuity and change; Economic Regionalisation should take into consideration the historical factors while suggesting the change in the economic structure.

To conclude their arguments on delineating the Economic Regions of India, following **Seven Postulations** have been suggested by them:

1. Regions have objective character as living realities.
2. Supremacy of production over other economic indicators in region formation.
3. Unity of regional and sectoral structure of the economy.
4. Regions are historical.
5. Economic regions are the basis of long-term perspective planning.
6. Inter-linkages between economic regions and administrative structure.
7. Special role of planned production in the formation of economic regions.
8. The Micro Planning regions should be identified on the basis of districts as the basic unit of data generation and compilation.

SAQ 3

Describe the regions identified under peninsular India.

18.5 SUMMARY

In this unit, you have learnt the following:

- A brief about economic approaches to define and delineation of economic regions of India.
- Various schemes to demarcate the economic regions of India, along with need and importance of economic regionalisation for diverse purposes.
- Detailed description of economic regionalisation scheme of P. Sengupta and other scholars.

18.6 TERMINAL QUESTIONS

1. Discuss the importance of economic regions.
2. Discuss the key features of Ashok Mitra's approach to economic regionalisation of India.
3. Highlight the difference between the basis adopted to demarcate the economic regions by Ashok Mitra and P. Sengupta and Galina Sdasyuk.

18.7 ANSWERS

Self-Assessment Questions (SAQ)

1. a) It refers to the distortions as a result of colonial inheritance in the independent India, which in turn created multiple impediments in reconstruction of the society and economy.
b) 1. The colonial impediments;
2. Balancing growth, distributive justice and balanced regional development;
3. Choice of democratic and decentralised governance; and
4. Imperatives of choice/option in transfer of technology for development.
2. The seven principles include objective character of regions, supremacy of production, unity of regional and sectoral structure of the economy, historical regions, and economic regions as basis of long-term perspective planning, inter-linkages between economic regions and administrative structure and special role of planned production in the formation of economic regions, etc.
3. These include North Western Peninsular Plateau, Maharashtra Plateau and its annex, Karnataka Plateau, Andhra Plateau and Tamil Nadu Plateau.

Terminal Questions

1. To answer this question, highlight the importance of economic regions with suitable examples. Refer to Section 18.2.

2. While answering this question, discuss and highlight the key features as devised by Ashok Mitra. Refer to Section 18.3.
3. Briefly highlight the differences between the bases adopted by two scholars in order to answer this question properly. Refer to Section 18.3.

18.8 REFERENCES AND SUGGESTED FURTHER READING

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GLOSSARY

Economic Approach	: It refers to the approach employed to identify the economic regions on the basis of certain criteria.
Physiographic Approach	: It refers to an approach used to identify the physiographic regions into different kinds based on some criteria.
Physiography	: It refers to the study of deciphering the signature of physical processes that helps to shape the surface of the Earth.
Relief	: It signifies the measurement differences between two high and low points on the surface of the Earth respectively.
Socio-Cultural Approach	: It refers to the use of an approach to identify the socio-cultural regions on the basis of a criterion.
Terrain	: It refers to layout of the surface of the Earth expressed in terms of the elevation, slope, and general orientation of the surface features.
Topography	: It depicts the earth's three-dimensional surface features including natural and human made features on two-dimensional maps.

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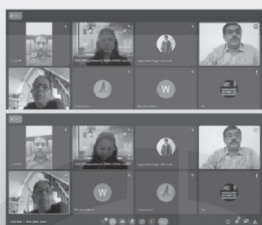
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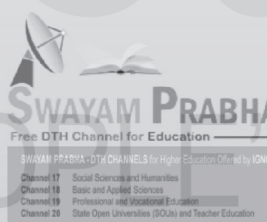
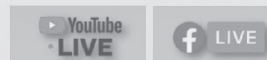
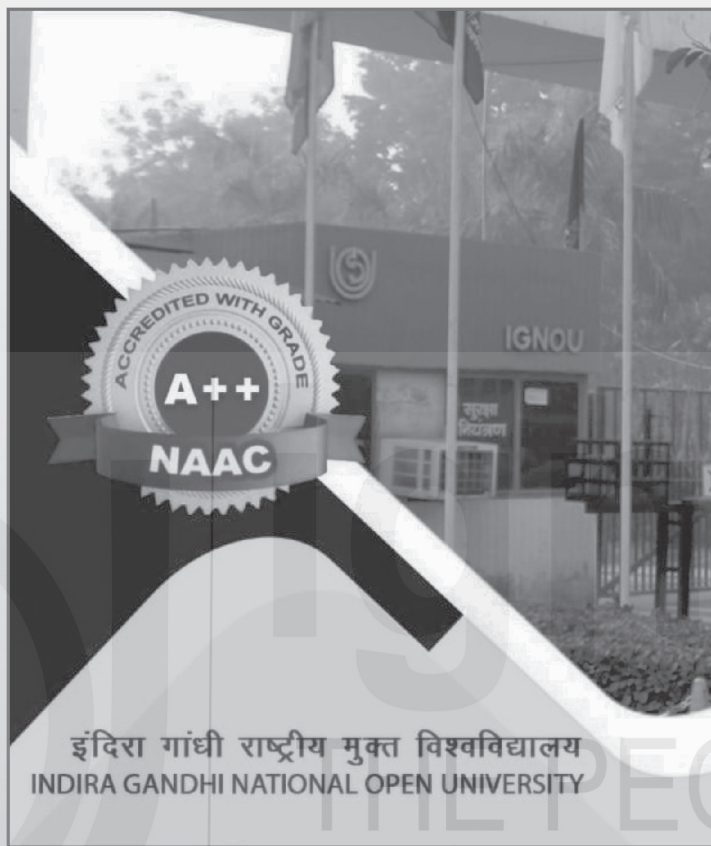
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