A region is an area having the homogeneous characteristics in selected criteria. As far as the methods of delimiting a region are concerned they can be grouped into three categories;

a. Homogeneity – stresses homogeneity with reference to someone or combination of physical, economic, social or other characteristics,

b. Nodality or Polarization - usually around some central urban place; and

c. Programming or Policy oriented – concerned with administrative coherence or identity between the area being studied and available political institutions for effectuating policy decisions.

Planning is generally understood to apply or implement some sort of regimentation, regulation and guided direction of economy and other activities of a country to develop the economy. According to the Planning Commission of India, planning involves the acceptance of a clearly defined system of objectives in terms of which to frame overall policies. It also involves the formation of strategy for promoting the realization of ends defined. Planning is essentially an attempt at working out a rational solution of problems, an attempt to coordinate means and ends; it is thus different from the traditional hit-and-miss methods by which reforms and reconstruction are often undertaken”.

Constituents of a plan – Problem identification, after the objectives have been accepted, the planners should proceed to decide how they can be achieved, after priorities have been determined, the least-cost method of carrying them out should be determined, implementation of the plan and continuous evaluation of the implementation programme.

Regional Planning

Regional Planning is a specific type of planning, based on a regional system, for inducing public action aimed at societal well-being. Regional planning deals with the efficient placement of land-use activities, infrastructure, and settlement growth across a larger area of land than an individual city or town. Regional planning is related to urban planning as it relates land use practices on a broader scale.

**SCOPE OF REGIONAL PLANNING**

1. Town Planning
2. Rural Planning
3. Environmental Planning

4. Human Resource Development and Management

5. Physical Resource Planning

6. Economic Development Planning

7. Community Planning

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Planning Regions

Keeble defined a planning region to be an area that is large enough to enable substantial changes in the distribution of population and employment to take place within its boundaries, yet which is small enough for its planning problems to be viewed as a whole.

The planning regions should have the following characteristics;

- The people of the region should have social and cultural cohesiveness
- The region should be a separate unit for data collection and analysis
- The region should have an economic existence which can be assessed from statistical records
- It should be small enough to ensure local people’s participation in its development
- It should be under one administrative agency
- It should not be too small; its geographical size should be big enough to exploit resources and avoid duplication
- It should have fairly homogeneous economic structure
- It should have one or more growth points
- There should be common appreciation of local problems and common aspirations and approaches to their solution
Planning region is classified in to formal region and functional region;

Formal Region

Formal or uniform region is a region in which the internal variation of specified criteria (economic, cultural, physical features etc) is appreciably less than the variation between the region and other areas

i.e., External variation (between region)/Internal variation (within region)=Maximum

Delineation of formal region

In the delineation of formal region to find out similarities, homogeneity and uniformity in localities on the basis of a specific criterion (or a set of criteria). The localities possessing homogeneity are classified as constituting one region. We have also emphasized that the criterion may relate to the physical geography, economic structure, or socio-cultural factors. Try to delineate regions by taking into account more than one feature (such as per capita income, literacy, industrialization etc), the methods that can be adopted in such a case are basically three;

1. Fixed index method – a number of characteristics (indices) common to regions are chosen; per capita income, unemployment, rate of industrialization. An arbitrary weight is given to each index and a single weighted mean is obtained in each region. Then contiguous regions, with similar indices, are grouped together in order to minimize the variance within each group.

2. Variable index method – variable weights are assigned to highlight different levels of activities in different regions. The weight given to each activity, in each region, is different and in accordance with the value. This method is used when the criteria can be compared with each other.

3. Cluster method – In those areas the comparability is not possible (e.g. in the case when one feature literacy and the other is steel production), it becomes necessary to employ cluster method. The cluster method is used to detect the homogeneous character of the structures of different regional units. For this purpose, a study of the income and trade flows can be made.
Functional Region

It is an area under the economic and social domination of an urban centre. These are delineated on the basis of spatial interaction and emphasize functional inter-dependence between the different locations within the area. So here in term of links;

Internal links (within region)/External links (between regions)=Maximum. Here boundaries are not clear-cut and nodal regions may overlap and interpenetrate.

Delineation of functional region

To delineate the functional regions two methods are generally employed-

1. The flow analysis- is based on an empirical study of flow data which may refer to different forms of spatial flows such as intra-regional commodity flows, community patterns and migration flows; distribution area of retail and household goods are their relative traffic over different parts of trade area etc. Each flow would show a decreasing intensity as it becomes more distant from the main centre. The boundary of area of influence will be where the flow of area of influence will be where the flow intensity reaches the maximum.

2. The gravitational analysis

Under this analysis we study the theoretical faces of attraction between centres instead of actual flows as under the flow analysis. It shows the potential flows between the centres. The gravitational force between two centres a and b can be shown by

\[ G_{ab} = K \left( \frac{M_a M_b}{d_{ab}^2} \right) \]

Where \( G_{ab} \) represents the gravitational force between centres a and b,

\( M_a \) and \( M_b \) represents masses of centres a and b,

\( d_{ab} \) is the distance between them

\( K \) is the constant.

Mass may be population, employment or income and distance may be distance of road, airline, time, money etc.
Planning region, must be considered to include even those areas which have no or little linkage with the nodal points. On the basis the following fourfold classification of planning regions has been suggested:

1. Metropolitan or city regions

2. River valley regions

3. Axial development regions and

4. Transitional or depressed regions

1. Metropolitan region – for example, has an urban centre around which are the peripheral areas. Within these areas are smaller settlements, some of which are satellites of the centre while the others are very loosely linked with it. As one goes away from the centre, the influence of the metropole decreases. We finally reach a dividing line beyond which some other centre may or may not have its sway. The area falling within this dividing line is included in a given metropolitan region.

2. River valley region – aAmong the natural resource regions, river valley regions is the familiar one. In India we have planning regions like Damodar Valley region which being developed on the same lines as the Tennessee valley region of the USA. These river valley regions are also functional in nature because the river basins constitute a system of rivers and catchment areas which form an organic whole. A flood in one tributary basin raises the water level in the main river of the system. Efforts to control the flow of the main stream without controlling the flow of the tributaries cannot succeed. The life of the people living in the river basin is too directly linked with its bounties and furies that “the man and the river” become inseparable. Planning for the river valley means planning for the whole basin and not for a part of it.

3. Axial regions – develop along transportation lines or irrigation channels. With each opening or improvement of a transportation line or irrigation channel new activities are generated on both sides of the line. Width of the zone influenced by the new developments increases through time and if properly directed the elongated zone acquires the characteristics of a relatively fast growing region, with the transportation line or irrigation channel as its “economic hub”.
4. Transitional region or depressed region – Such regions lie in between the growth centres. These regions experience and outflow of men and resources. They may be agricultural regions as in India or ming regions as in the USA. For all practical purposes, such regions are problem regions, and each sub-area within them contributes to the poverty of the other. They are all linked by a common bond of poverty and ignorance and a desire to better their prospects.

**Approaches to Regional Planning**

- Geographical approach
- Economic approach
- Sociological approach
- Holistic approach

**Delineation of physical regions of India**

Chatterjee divides the country into seven major physiographic division on the basis of topography;

1. Northern mountains which include the Himalayas and the mountain ranges in the north-east
2. Great Plains
3. Central Highlands
4. Penninsular Plateaus
5. East Coast
6. West Coast and
7. Bordering seas and Islands

**Economic Regions of India**

The scheme of Bhat and Rao;

On the basis of a study of the “distributional patterns of resources with the help of qualitative maps of distribution of important natural resources followed by a study of agricultural land use structure on the basis of district wise data”, Bhat and Rao identified
eleven major regions and 51 sub-regions. In this scheme, “the guiding principle is that major regions should have minimum disparities withi and distinctiveness from their neighbours in respect of regional character and resources for development. While the regional development norm is common for the major region as a whole, sub-regions are identified depending upon the concentration of resources, problems for development and administrative convenience”.

The major eleven regions are;

1. West Coast Region
2. Western Ghats
3. Central Plateau
4. Eastern Ghats
5. East Coast
6. North-Eastern Plateau
7. The Ganga Plain
8. Assam
9. Gujarat
10. Rajasthan and

Besides these major regions, 51 sub-regions were identified.

States can be grouped in different ways to form macro-economic regions depending on the purposes for which the process of regionalization is being carried out. Thus “if we adopt the principle that each macro-economic region should have power-metallurgical base as strong catalysis for attaining balanced regional development implying certain level of self-sufficiency”, the macro-economic regions can be defined as under, by grouping parts of different states”.

<table>
<thead>
<tr>
<th>Macro Economic Regions</th>
<th>Groups of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern</td>
<td>Karnataka, Tamil Nadu, Andhra Pradesh</td>
</tr>
<tr>
<td>Western</td>
<td>Maharashtra and Gujarat</td>
</tr>
<tr>
<td>Eastern</td>
<td>Bihar, Odissa, West Bengal, and Assam</td>
</tr>
<tr>
<td>North-western</td>
<td>Punjab, Haryana, Rajasthan and Jammu and Kashmir</td>
</tr>
<tr>
<td>North-central</td>
<td>Uttar Pradesh and Madhya Pradesh</td>
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</tbody>
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