1

UNDERSTANDING REGIONAL PLANNING

After going through this chapter, you will be able to understand the following features.

Unit Structure

1.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the Planning: concept, nature, and need
- Understand the Regional Planning: Concept, nature, and relation with Geography
- Know the Role of surveys and geospatial technology in regional planning
- Understand major Problems associated with regional planning.

1.2. INTRODUCTION

In this unit, we will learn the concept, meaning and definition of planning as well as we are also, able to understand the other dimensions of planning i.e. types of planning and its need too.

When we understand the concept of planning the we can understand the concept of "regional planning".

In the 21th century, regional planning is so important because of there is no geographical region in the world which have been fulfilled. that means there is a difference between region to region and if we can apply this regional planning concept on those all-backwards area which is somehow dependent to another region. We need to understand relation between regional planning and geography.

Today's modern era how we can use geospatial technology in regional planning. The help of geospatial technology we reduce the disparity between the region to region. There is several problems in regional planning we should identify all problems and solve them.

The bottom line is planning and regional planning both are important concept in geography the help of this concept we can reduce the disparity in the region and we can utilise all possible resources for the development of the region.

1.3. SUBJECT DISCUSSION

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 to land use practices on a broader scale. It also includes formulating laws that will guide the efficient planning and management of such said regions. Regional planning can be comprehensive by covering various subjects, but it more often specifies a particular subject, which requires region-wide consideration.

Regions require various land uses; protection of farmland, cities, industrial space, transportation hubs and infrastructure, military bases, and wilderness. Regional planning is the science of efficient placement of infrastructure and zoning for the sustainable growth of a region. Advocates for regional planning such as new urbanist Peter Calthorpe, promote the approach because it can address region-wide environmental, social, and economic issues which may necessarily require a regional focus.

A 'region' in planning terms can be administrative or at least partially functional and is likely to include a network of settlements and character areas. In most European countries, regional and national plans are 'spatial' directing certain levels of development to specific cities and towns in order to support and manage the region depending on specific needs, for example supporting or resisting polycentrism.

1.4. PLANNING: CONCEPT, TYPES, AND NEED

1.4.1. Planning: concept:

What is Planning?

Planning is defined as "defining objectives for a given period, designing various courses of action to achieve them, and selecting the most practicable alternative from the various alternatives." We may also describe planning as the process of identifying goals and devising a plan of action to attain them. Planning entails setting objectives and choosing the best path of action in advance. Time is a crucial component in planning. Plans are always made for a specific period because no firm can plan indefinitely.

Planning is essential for all organisations, whether public or private or run by sole proprietors. To realise their dreams of increasing sales, making large profits, and succeeding in business, all businessmen must consider the future, make predictions, and achieve goals. Planning entails deciding what to do, how to do it, and when to do it.

Meaning of Planning

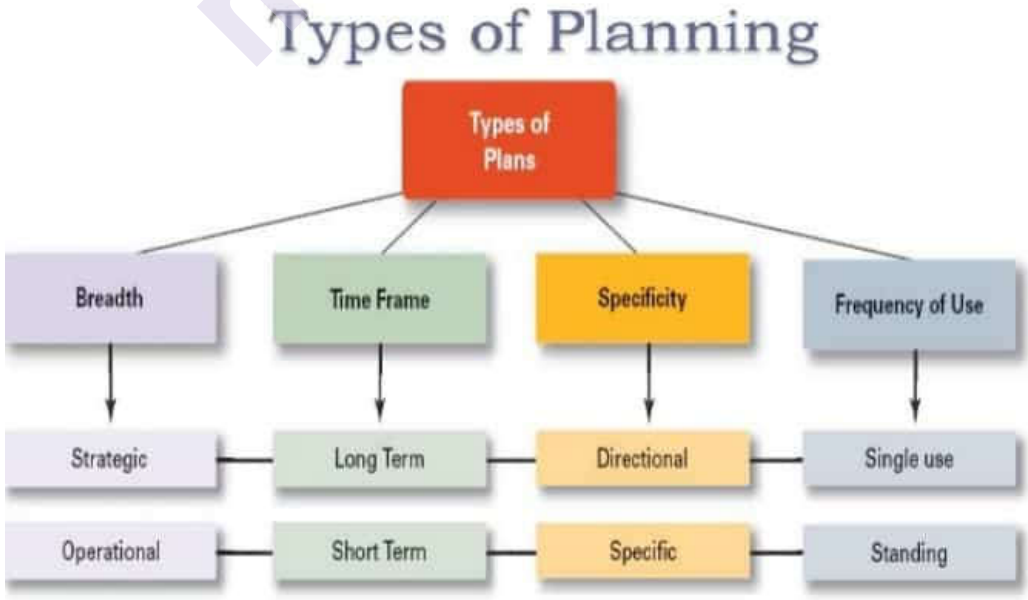
Making decisions about what to do, why to do it, and when to do it necessitates preparation. Before beginning a task, management must plan out how to complete it. As a result, creativity and innovation are inextricably linked to this management function.

Setting goals allows a manager to know where he needs to go because planning bridges the gap between where we are now and where we want to be. The actions taken by managers at all levels are central to planning. It necessitates deciding because it involves choosing one course of action over another.

1.4.2. Planning : Types:

Planning involves selecting missions and objectives and deciding on the actions to achieve them; it requires decision-making, i.e., choosing a course of action from among alternatives. Plans thus provide a rational approach to achieving preselected objectives.

Planning bridges the gap from where we are to where we want to go. It is also important to point out that planning and controlling are inseparable-the Siamese twins of management. Any attempt to control without plans is meaningless since there is no way for people to tell whether they are going where they want to go (the result of the task of control) unless they first know where they want to go (part of the task of planning). Plans thus furnish the standards of control.



TYPES OF PLANNING

Planning is a complex and comprehensive process involving a series of overlapping and interrelated elements or stages, including strategic, tactical, and operational planning.

I. On the basis of content, Plans can be classified as:
A. Strategic Planning
B. Tactical Planning
C. Operational planning

A. Strategic planning :

Establishes master plans that shape the destiny of the firm. An example of strategic planning is when the executive team at Harley-Davidson Inc. planned how to deal with the demographic shift of their customer base becoming much older.

Strategic plans set broad, comprehensive, and longer-term action directions for the entire organization.

- It is the process of deciding on Long-term objectives of the organization.
- It encompasses all the functional areas of business
- It decides major goals and policies of allocation of resources to achieve these goals.
- Done at higher levels of management Less detailed because it is not involved with the day to day operations of the organization

B. Tactical planning :

translates strategic plans into specific goals and plans that are most relevant to a particular organizational unit. The tactical plans also provide details of how the company or business unit will compete within its chosen business area. Middle level managers have the primary responsibility for formulating and executing tactical plans. These plans are based on marketplace realities when developed for a business. Conditions can change rapidly in competitive fields such as a Korean company suddenly developing a substantially lower price sports bike.

- It involves conversion of detailed and specific plans into detailed and specification plans.
- It is the blue print for current action and it supports the strategic plans.
- It is Mid-term term
- It is more detailed because it involves with day to day operations of the organization.
- It is done at middle level of management

C. **Operational planning** :

identifies the specific procedures and actions required at lower levels in the organization. If **Harley- Davidson** wants to revamp an assembly line to produce more sports bikes, operational plans would have to be drawn. In practice, the distinction between tactical planning and operational planning is not clear-cut. However, both tactical plans and operational plans must support the strategic plan such as revamping manufacturing and marketing to capture a larger group of young cyclists.

- It is short term
- It is more detailed because it is involves with day to day operations of the organization.
- Done at lower level of management
- Define what needs to be done in specific areas to implement strategic plans.

– Production plans
– Financial plans
– Facilities plans
– Marketing plans
– Human resource plans

On the basis of time period

• Long term planning

- Time frame beyond five years. Long term Plans: >5yrs
- It specifies what the organization wants to become in long run.
- It involves great deal of uncertainty.
- Higher management levels focus on longer time horizons.
- Cover a longer time
- May include a variety of different types of training

Some examples Long term Plans:

- An annual plan, including Fast Start and basic training
- Makeup training sessions
- Den chief training
- Regular monthly roundtables
- Supplemental training
- Personal coaching
- Self-study

We should not overlook the importance of long-range plans in providing a total leadership growth and development program for leaders.

• Intermediate term/ Midterm planning

1. Time frame between two and five years. Medium Term Plans: >1 yr but <5yrs
2. It is designed to implement long term plans.

• Short term planning

1. Time frame of one year or less. Short term Plans: Upto one year
2. It provide basis for day to day operations.
3. Meet a particular objective in the near future
4. Cover a limited area of training
5. Answer the question: Are we doing things right?
6. Should fit well within and contribute to long-range plans.

Some examples:

- Plans for basic training sessions for new leaders who have just been recruited
- Plans for a den chief training conference
- Plans for training roundtable staff members

1.4.3. Planning : Need:

Planning helps you set appropriate goals

Before you begin to plan, you likely have an idea about what you're hoping to accomplish. Planning helps you refine that goal and determine if it's realistic or not. As an example, you might want to increase sales at your job to a specific number. After taking the time to plan, you realize that number was a bit too high based on factors outside your control. You adjust your goal based on this new information.

Planning breaks a problem or goal into smaller pieces

Many problems or goals in your life will be complicated. There are often more than just two paths you could take, so it's not a matter of just flipping a coin. It can be very overwhelming. Planning helps break down the issue into smaller pieces and distribute tasks when applicable. Even if you're the only one facing the dilemma, planning turns a larger, more abstract thing into bite-sized activities. It's like paving a road brick by brick to a resolution in the distance.

Planning reveals weaknesses (and strengths)

As you work through a plan and look at it from every angle, you'll notice what makes the plan weak and what makes it strong. This is an essential part of planning because if you steamrolled ahead toward your goal, you

could end up sabotaging yourself early on. Thinking critically about your plan's flaws helps you make adjustments. Taking note of its strengths affirms if it's a good idea.

Planning increases certainty and confidence

Uncertainty is part of every new project or problem-solving endeavor. That creates fear. When you take the time to plan well, you'll see a boost in your confidence and an increase in certainty. No one can predict the future and there will always be surprises, but planning gives you a much clearer idea about what lies ahead.

Planning increases efficiency

You've no doubt heard about projects where people didn't plan well enough. There's a big focus on the embarrassment of defeat, but it's important to also note how much waste occurred. That includes wasted money, talent, and time. Even if a project doesn't completely fail, the lack of planning means it took more resources than necessary to reach the finish line. Planning well increases efficiency and prevents waste.

Planning reduces risk

Because we can't know the future, every new endeavor involves risk. In many scenarios, the level of risk determines whether a project or idea can move forward. If your goal involves others – like an organization or a team – the level of risk can determine if they're willing to give you a shot. How can you address this concern? Explain your plan. You can prove that you've thought through the challenges and are prepared to adjust as needed. You show that you've done everything you can to reduce risk.

Planning increases your credibility

Speaking of working with organizations and teams, being a good planner is one of the best ways to earn credibility. If you're in a leadership position (or hope to be), your ability to guide the planning process will determine how successful and respected you are. Good planners know how to set clear, realistic goals and what needs to happen for that goal to be achieved.

Planning encourages creativity

Breaking a big goal into small parts, analyzing the weaknesses, and coming up with ways to reduce risk make a great recipe for innovation. Creative thinkers – like artists, musicians, and writers – often talk about how the boundaries and problem-solving of planning force them to stretch their minds.

Planning improves decision-making

Is it possible to make a good decision without enough information? When you plan, you gather the information necessary to make a thoughtful, well-

rounded decision. You're aware of the challenges and possible problems, which helps you make better decisions each step of the way.

Planning equals more peace of mind

There are many planning benefits – increased efficiency, reduced risk, boosted creativity – but there's one last benefit that shouldn't be ignored: peace of mind. Any project or idea that requires a plan will trigger some stress. Planning strips a lot of the uncertainty from the future and boosts your confidence. You've thought through everything. You've weighed the pros and cons. Stress probably won't evaporate completely, but you have more peace of mind than you did before planning.

1.5 REGIONAL PLANNING: CONCEPT, NATURE, AND RELATION WITH GEOGRAPHY:

1.5.1. Regional planning: Concept:

Regional Planning is multidisciplinary approach aims at holistic development of a region. According to Mackaye "Regional Planning is an attempt at discovering the plans of the nature for the attainment of Man's ends upon the Earth". According to Muniford, "Regional Planning asks not how wide an area can be brought under the aegis of the Metropolis, but how the population and civic facilities can be distributed so as to promote and stimulate a vivid and creative life throughout a whole region". Regional Planning is a specific type of planning, based on, specific planning structure for inducing public action aimed at societal well-being.

It implies that Regional Planning is concerned fundamentally with the society in the context of space. Regional Planning considered as a geo-technology for comprehensive development of regions through rational transformation of regional space. It seeks to recognize space more rationally with a view to achieving greater regional integration Regional Planning at different spatial levels ensures the fuller development of the potentialities of the smallest unit, consisting a region. Regional Planning should be viewed as essentially a means to strength the national economy through the mechanism of Regional Planning by evaluating the potentials of sub regions and to develop them to the best advantage of the nation a whole.

Thus, the basic goals of Regional Planning are;

- Building the resource base of an economy
- Strengthen the economic opportunities
- Diversifying the national economy
- Providing strength and balance in the economic development of the nation

• Environmental improvement and protection9 general welfare of the people Regional Planning processes intended to use collective intelligence and foresight to chart direction, order, harmony, and progress in public activities relating to the human environment and general welfare. Regional Planning strives to develop a broad base of regional economic activities as it natural and human resources can be economically sustained. Regional Planning does not work for regional self-sufficiency but for balanced and harmonious national development.

1.5.2. Regional planning relation with Geography

Extensive urban and suburban growth has characterized much of the latter half of the 20th century. Accordingly, urban geography and urban and regional planning have grown as key areas of geography, with geographers contributing significantly to the broader planning field. At the dawn of the 21st century, as urban areas become increasingly congested and populated, the need for planners will only grow.

Regional planning focuses on the spatial organization of activities and land use activities, infrastructure and across a larger area of land than an individual city or town. Regional planning is a sub-field of urban planning as it relates land use practices on a broader scale. Regional planning also studies the processes and forces that effect change in different regions, including population growth and distribution, ethnic makeup, political movements, and industrial patterns. Regional planners focus both on the Geographic education and training promote the kind of understanding of society's unique or distinctive characteristics of individual regions and on the similarities that exist between many regions.

Complex use of urban and rural land necessary for successful planning and for providing possible solutions to problems arising from conflicting land uses within regions. The powerful tools of geography namely GIS, cartography, and remote sensing further bolster the geographer's ability to plan effectively for the future.

Ideally, planners are able to prepare master plans that will benefit the economy and social fabric of neighbourhoods, communities, cities, and regions. They work to make cities efficient, but attractive places to live and work by considering zoning regulations, traffic flows, building density, hydrology, population distribution, and recreational needs. To gain these skills, planners study population geography, transportation, social service, utilities, and solid- waste disposal systems.

Some planners concentrate almost exclusively on transportation planning. Traffic congestion and its associated noise and air pollution has become a major problem in many cities, especially since people have resisted most mass transit initiatives and insisted on private automobiles as their preferred means of transportation. This puts a tremendous strain network developed spatial analysis skills, geographers can assist in this planning endeavour.

1.6 ROLE OF SURVEYS AND GEOSPATIAL TECHNOLOGY IN REGIONAL PLANNING:

Here are the 6 major role of geospatial technology which we can use in the regional planning.

- Land Use Planning and Management
- Crime Mapping and Analysis
- Solid Waste Management
- Urban Infrastructure and Utilities
- Urban Transportation
- Spatial Planning

1. Land Use Planning and Management

Land use refers to the human activities on land. The key topics in this category where GIS is critical are

- **Land Use Mapping**: Present spatial distribution of land cover, land use and zoning
- **Land Use Planning**: Determine the desired future development pattern in a given area
- **Land Use Analysis** : Identify land use patterns and distributions and developability of a proposed land use.
- **Land Suitability Analysis**: Determine optimal functional use of the land considering social, physical, spatial and economic factors

Here are some example GIS Applications that show how spatial analysis techniques can be applied for such tasks.

1.1 CREATING A ZONING MAP

Zoning designations define and regulate what kinds of uses are allowed on specific parcels of land and outline design and development requirements and guidelines.

1.2 IDENTIFYING INFORMAL SETTLEMENTS AND URBAN GROWTH PATTERNS

Land-Cover data is a crucial reference dataset that informs a wide variety of strategic planning activities. Using simple raster algebra operation using QGIS *Raster Calculator* one can identify areas under informal settlements.We can use land cover change datasets that shows class transitions between 2 epochs to identify all pixels that have transitioned from a non-urban class to an urban class. This can be done using the *Reclassify by layer* algorithm in QGIS to take the input multi-class

raster and convert it to a 3-class raster consisting of non built-up, existing built-up and new built-up areas. The resulting layer can be styled to show the urban growth pattern between the 2 epochs.

1.3 DETERMINING LANDUSE BUFFER ZONES

A useful spatial analysis techniques is to determine a buffer of restricted area around all parcels belonging to a specific land use type. Such analysis can be used to establish a corridor of restrictions around institutional land use for controlling noise pollution or heavy traffic.

2. Crime Mapping and Analysis

There are several policy, planning, governance and technological approaches to address urban crime dimensions and its impacts. The applications of GIS are primarily in the following areas

- **Crime Classification and Mapping**: Aggregation and classification of crime incidents
- **Crime Hotspot and Density Analysis**: Identify crime heatmaps and prepare crime density maps
- **Surveillance and Infrastructure Mapping**: Mapping and coverage analysis of CCTV cameras, lighting infrastructure etc.
- **Crime Prevention**: Applying multicriteria analysis techniques for allocation and optimization of resources

A few curated examples that demonstrate how GIS is critical for crime mapping, analysis and prevention strategies.

2.1 MAPPING CRIME STATISTICS

It is important to understand the pattern of crime across administrative regions. Here's an application to take crime statistics data and createt a choropleth map showing distribution of crime rate across police station boundaries.

We take the Station Boundaries and Points shapefiles provided by South African Police Service(SAPS) and join it with burglary counts from Crime Statistic of Republic of South Africa using the *Join Attributes by Table* algorithm in QGIS. We then normalize the raw counts using population data raster from WorldPop using the *Zonal Statistics* algorithm. The result is a choropleth map of crime rate.

Displaying statistics linked with spatial data in a map is very powerful. We explore the DataPlotly plugin to create a time-series chart of burglaries.

2.2 CRIME HOTSPOT IDENTIFICATION AND MAPPING

There are 3 primary techniques for mapping crime incidents.

- **Point mapping**: Individual incidents are mapped with 1 point for each incident. Techniques such as using 'Feature Blending' mode in QGIS can help show areas of high number of crimes and create a dot map like this.
- **Binning**: Aggregate the individual incidents over a rectanglular or hexagonal grid to show areas with high crime. This can be achieved in QGIS with the *Create Grid* and *Count Points in Polygon* algorithms. One needs to be aware that this technique suffers from the Modifiable Area Unit Problem (MAUP) and care needs to be taken to test various configurations before drawing conclusions from the results.
- **Heatmap / Kernel Density Estimation**: Hotspot mapping is the most widely used technique to identify areas of concentrated crime. This is the most robust technique for identifying crime hotspots. A fine grid is generated over the point distribution. A moving window (i.e. Kernel) of a specified radius visits each cell in the grid and calculates weights for each point within the kernel's radius. The final value of the grid is determined by summing values from all points

3. Solid Waste Management

The applications of GIS in Solid Waste Management can be categorized into following

- **Infrastructure**: Visualizing and analyzing spatial spread of waste management infrastructure and capacity (i.e. bins, landfills, recycling centers etc.)
- **Service Delivery:** Identifying underserved areas and optimizing waste lifting cycles
- **Resource Mobilization**: Identifying area potential and budget allocation for waste management

Here are some applications that show how GIS can be applied to solve waste management challenges

3.1 MAPPING WASTE DISPOSAL VOLUMES

We take a spreadsheet of waste entering city disposal facilities and a shapefile of landfill sites from the City of Cape Town Open Data Portal. We create a proportional-symbol map showing amount of waste processed at each landfill using *Data-defined Overrides* in QGIS. The result is a beautiful and informative data visualization that also uses *Data-defined Size Legend* feature to show the distribution of waste across different sites.

3.2 SERVICE AREA ANALYSIS

Continuing to work with waste infrastructure data for the city of Cape Town, we will take locations of waste collection facilities and determine which areas of the city are within 15-minutes of driving time. This will allow us to determine opportunities for improving the service delivery with potential new locations. The service area computation is done via the excellent **ORS Tools plugin** for QGIS using the *Isochrones From Layer* algorithm. We get polygons representing actual drive times along the road network – instead of more commonly used circular buffer zones.

3.3 LOCATION-ALLOCATION ANALYSIS

Location-allocation analysis is used locate a set of new facilities such that the travel cost from facilities to demand-areas is minimized and assigns the closest facility to each demand point. The '*travel cost*' can the total distance or travel time. We take the Refuse Collection Beats polygon centroids as *Demand Points* and locations of Waste Drop-off Facilities as *Facility Locations* and evaluate 2 potential waste drop-off facilities to determine which facility is the optimal location to minimize the overall travel cost for citizens. The network analysis is done via the Distance Matrix algorithm provided by **QNEAT3** plugin for QGIS.

4. Urban Infrastructure and Utilities

Cities are generally faced with infrastructure and service delivery challenges and GIS can be applied to effectively solve them. The applications primarily fall into the following categories:

- **Asset Management**: Cataloguing, operation and maintenance of existing infrastructure such as water supply network, sewerage and storm water drainage, street lighting, and telecom
- **Service Delivery**: Identifying gaps and planning for new infrastructure

4.1 FIELD DATA COLLECTION

Mapping infrastructure and associated attributes is a key step in asset management. We use the QGIS based open-source mobile field data collection app Input to design a form to survey streetlights.Each participant does a survey of streetlights around a street block using the mobile app and then sync the field data to QGIS desktop. Loading the *Dark matter* basemap by CartoDB and applying a *shapeburst fill* symbology can be used effectively to visualize un-lit spots in the neighborhood.

4.2 MULTICRITERIA OVERLAY ANALYSIS

Multi-criteria overlay analysis is the process of the selecting areas on the basis of a variety of location attributes. We will apply geoprocessing techniques on multiple vector layers and find areas to build new parking facilities that can help reduce bicycle thefts.

Using Cycling Infrastructure data from Transport for London and London Individual crime and anti-social behavior (ASB) incidents from Police.uk we apply multi-criterial GIS analysis techniques to propose a new bicycle parking facility in the Westminster borough of London to reduce thefts. We use the following criteria

1. The proposed area must be in a bicycle theft hotspot
2. The proposed area must be within 50meters from a bicycle route
3. The proposed area must NOT be within 50 meters from an existing bicycle parking

Using the vector layers representing each criteria, this analysis is carried out using the Buffer, Intersection, and Difference tools from the QGIS Processing Toolbox.

5. Urban Transportation

Spatial data and spatial analysis are key to effective transportation planning. Urban planners can apply GIS for

- **Walkability**: Determining conducive urban spaces for walkability at a city/ neighbourhood level.
- **Mobility**: Accessibility and coverage of various modes of transport
- **Traffic**: Analysis of traffic hotspots and congestion patterns
- **Transit Oriented Development (TOD)**: Integration of land use, population and public transit network for site suitability and route planning.
- **Smart Transportation**: Analyzing transportation network for suitability of smart sensors, identifying locations for EV charging stations etc.

5.1 ANALYZING METRO RAIL ACCESSIBILITY

When planning for transit-oriented development (TOD), a useful criteria is accessibility to public transport. We can apply spatial analysis techniques to determine what percentage of population in a given city lives in close proximity to metro stations. We first query OpenStreetMap database via the QuickOSM plugin in QGIS to get the location of functioning metro stations in the city of Bangalore, India. Then we calculate a 1km buffer and use the *Zonal Statistics* algorithm from QGIS on a population grid from WorldPop. The result of our analysis shows what percentage of the city's population has easy access to the metro rail system.

6. Spatial Planning

Spatial planning is an interdisciplinary activity that takes a structured approach in terms of targeted areas interventions by looking at spatial

patterns, trends, growth, integration, economic activities, infrastructure and limitations across the city. The key areas for GIS applications are

- **Urban Space**: Analyze patterns of land use (green spaces, informal settlements) across different ward/regions.
- **Biodiversity/Ecology**: Identify the eco-sensitive areas, represent overall biodiversity plans in terms of regional ecosystems (biomes, vegetation, wetlands, rivers, ground water, marine, others)
- **Spatial Economy**: Analyze the spatial pattern of the city in terms of economic hot spots and economically backwards areas requiring investments. Identify the potential urban and rural economic drivers.
- **Integrated Planning/Spatial Development Framework**: Identify urban growth corridors
- **Smart City**: Identify the potential areas for smart eco-development zones, walkable zones, high internet connectivity etc.

1.7 PROBLEMS ASSOCIATED WITH REGIONAL PLANNING(INDIA/WORLD):

2. Refusal of the richer states to transfer some of their surplus resources to the poorer states;
3. Lack of self-reliance on the part of poorer states and thereby too much dependence on the transfer of resources from richer states;
4. Area development programmes for the backward areas are lacking an integrated approach;
5. Failure of large central projects located in the backward areas to improve their economies;
6. Non-approaching attitude of the entrepreneurs to seek concessional finance from the public sector financial institutions;
7. Too much concentration of Central Government investment subsidy meant for specific backward areas into a few areas of some districts and too much of such investment subsidy on capital related investments leading to creation of lesser employment opportunities;
8. Lack of infrastructural facilities like power, transport, communication etc. and lack of adequate fiscal and monetary incentives from the State Governments have led to no development of ancillary industries, secondary and tertiary industries in and around these major central industrial undertakings;
9. Lack of proper incentives offered by the State Government for tackling the problem of intra-state imbalances existing within a state;
10. Inadequacy of fund allotted by the State Governments for the development of backward and other special problem areas;

11. Non-utilisation of plan outlays and loans and advances given to the states for the development of backward areas.

Considering the above major problems of the regional planning strategy in India, the problem of regional imbalances has to be considered not only in financial terms but also in physical terms. In order to develop these backward regions, the central assistance should be directly linked with specific programmes. Development potentials of the backward areas should be clearly identified and proper steps should be taken to develop such potentialities in order to remove such relative backwardness of those areas.

Check your Progress/Exercise:

1. Write a short note on following:

1. Concept of Planning

2. Regional planning

3. Geospatial technology

Q. 2. Discuss in details about regional planning.

Q.3. what are the difference between planning and regional planning.

Q.4. Discuss in details about the major problems associated regional planning in India.

Q. 5 explain the concept of planning and regional planning.

2

CONCEPT OF REGION IN PLANNING

After going through this chapter, you will be able to understand the following features.

Unit Structure

2.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the Concept of Region. types, and delineation
- Understand the Planning Regions: Need, characteristics, and hierarchy
- Know the Demarcation of planning regions: Principles, criteria, and methods
- Understand the Perroux's Growth Pole Theory and regional planning.

2.2. INTRODUCTION

In this unit, we will understand the concept region, meaning and definition of region as well as we are also, able to types, and delineation of region.

When we understand the concept of planning the we can understand the concept of "regional planning".

A planning region can be defined as a geographical region where designing and implementation of the development plan is possible for tackling of regional problems. It could be both formal & functional and generally transitional in nature: Example – Delhi Metropolitan Region.

We should understand the basic concept of Region is so important because of there is no geographical region in the world which have been fulfilled. that means there is a difference between region to region and if we can apply this regional planning concept on those all-backwards area which is somehow dependent to another region. We need to understand relation between regional planning and geography.

Today's modern era how we can use geospatial technology in regional planning. The help of geospatial technology we reduce the disparity between the region to region. There is several problems in regional planning we should identify all problems and solve them.

The bottom line is planning and regional planning both are important concept in geography the help of this concept we can reduce the disparity in the region and we can utilise all possible resources for the development of the region.

2.4 REGION: CONCEPT, TYPES, AND DELINEATION

- In geography, **regions are the areas that are broadly divided by its physical characteristics (physical geography), human impact characteristics (human geography), and the interaction of humanity and the environment (environmental geography).**
- Geographic regions and sub-regions are mostly described by their imprecisely defined, and sometimes **transitory boundaries**, except in human geography, where jurisdiction areas such as national borders are defined in law.
- '**Regions' or 'Landschaft'** is a similar concept that came into **existence in Mid 29th centaury from the "German School".**
- **At first, geographers where trying to classify the world into a natural region by the homogeneity and uniformity** between physical attributes of the area or space.
- **In the 20th century regions were classified into different categories (different functional regions or planning regions)** with the help of different statistical methods showing functional homogeneity in multiple attributes
- **At present, the Region and regionalization get wide spectrum through the planning process** in any country or a state or small unit of a natural, functional, or vernacular region of the word; to achieve the goal of sustainable development.

Definition of Region

A **region is an area on the earth's surface** marked by certain properties that are **homogeneous inside** and **distinct from outside it.**

A **Region** is defined as a **part of the Earth's surface with one or many similar characteristics** that make it **unique from other areas**. Regional geography **studies the specific unique characteristics of places** related to their culture, economy, topography, climate, politics, and environmental factors such as their different species of flora and fauna.

The concept of Region is generally linked with **Space** and has **Spatial dimensions**.

It is sometimes also used to as '**Subjective**' (a 'mental construct') or '**spaceless**'. However, for most Geographers, **Region is an Objective Reality linked with space, defined in terms of Space.**

Sometimes a **part of a District** (sometimes even a village) is called Region, **Sometimes a District**, **a State, a group of States is regarded as Region.**

Some important definition given by geographers are below:

- The Region is an area of the earth Surface. – ***Taylor***
- A region is an unit area of the earth's surface differentiated by its specific characteristics. – ***F. J. Monkhouse***
- The Region is a geographic area or areas which given civilisation, standard of a people seems to require for the fulfillment of the aspiration through a material resource. – ***C Aronovic***
- Any Surface over the earth's surface where physical conditions are homogenous is a region. – ***Woolfgang & Joerg***
- Regions are genuine entities, each of Which expresses both natural and cultural differentiation from its neighbours. – ***G. T. Ranner***
- "A region is a complex of land, water, air, plant, animal and man, regarded under their spatial relationship as together constituting a definite portion of the earth surface." – ***A .J. Herbertson***
- "A region is a domain where many dissimilar things are artificially brought together have subsequently adopted themselves to a common existence." – ***Vidal-de-La-Blache***
- "A region is an area of specific location which in some way very distinctive from other areas and which extends as far as the distinction extends." – ***Richard Hartshorne***
- "A region is an area within which the combination of environment and demographic factors have erected a homogeneity of economic and social structure." – ***T.T. Woofer***
- "An area throughout which a particular set of physical type of economic life." – ***R.E.Dicknision***

- Region is an are delineated on the basis of homogeneity of land – character, and occupance. – ***R.S. Platt***.

Development of Regional Geography

Regional geography has its roots in Europe; specifically with the **French and geographer Paul Vidal de la Blanche.** In the late 29th century, **De la Blanche developed his ideas of the milieu and pays.** The **milieu was the natural environment** and **pays was the country or local region.**

Before becoming the target of **systematic concerns**, **regional studies sought, above all, to identify specificities, curiosities, and descriptions** of the most different parts of the globe.

From the **mid-eighteenth century** several forms of description, **classification and analysis techniques have been created** without the intention to develop a more "**scientific" point of view** about the term **region.**

These concerns have become more common in the early twentieth century when the systematization of a **"regional geography**" began to take its first steps, both in Europe and in the United States.

Main geographers who developed the first theoretical definitions on the regional phenomenon: **Alfred Hettner, in Germany**, **Vidal-de-la-Blache, in France**, and **A. J. Herbertson, in Great Britain**.

The first systematic definition of the notion of the **region was made by Herbertson, in an article dated 2905.** With regard to its more methodological aspects, it can be said that the purpose is to create a "**systematic geography**", and seeks to find " **geographical divisions orders on the globe**".

The concern to define regionalization as a classification process, It makes explicit reference to the biology classification procedures (**Organic theory of Regionalisation**), thus demonstrating a deductive bias, based on the demarcation criteria, divides the world into major natural regions".

Herbertson (2905) proposes **four "classes of phenomena"** for such regions, in the following order of importance:

1. configuration (mainly the elements of geology and geomorphology of the earth);
2. climate (air masses, temperature, and precipitation levels);
3. vegetation; and
4. population densities

Setting natural regions would be, in this sense, "the necessary step for the final solution of the problems of geography" as these definitions would allow the establishment of a sound and lasting cuts on the earth's surface

even to understand the economic functions, which each portion of the space would fulfill since it was believed that the productive activities had clear causal relationships with natural elements such as climate, geology, landform, vegetation and soil of each area. This true "**physical regionalization**" of the world at the time was followed by several similar attempts, mainly conducted by **Russian geographers Gregg, 2974.**

Paul shows that in this period the region was a fact of physical geography, a fact of nature in virtually all that was written on the subject.

Gomes (2995) also noted that "**the concept of natural region is born from this idea that the environment has some ownership on the orientation of the society development**." Most of these definitions had a deterministic or "**environmentalist**" Bias.

Regional geography began to **develop in the United States specifically** and **parts of Europe in the period between World Wars I and II.**

During this time, **geography was criticized for its descriptive nature with environmental determinism and lack of a specific focus.** As a result, geographers were seeking ways to keep geography as a credible university-level subject.

In the 2920s and 2930s, geography became a regional science concerned with why certain places are similar and/or different and what **enables people to separate one region from another**. **This practice became known as areal differentiation.**

In the U.S., **Carl Sauer and his Berkeley School of geographic thought** led to the development of **regional geography**, especially on the **west coast**. During this time, **regional geography was also led by Richard Hartshorne who studied German regional geography in the 2930s** with famous geographers such as **Alfred Hettner and Fred Schaefer.**

Hartshorne defined geography as a science **"To provide accurate, orderly, and rational description and interpretation of the variable character of the earth surface."**

For a short time during and after WWII, regional geography was a popular field of study within the discipline. However, it was later critiqued for its specifically regional knowledge and it was claimed to have been **too descriptive and not quantitative enough**.

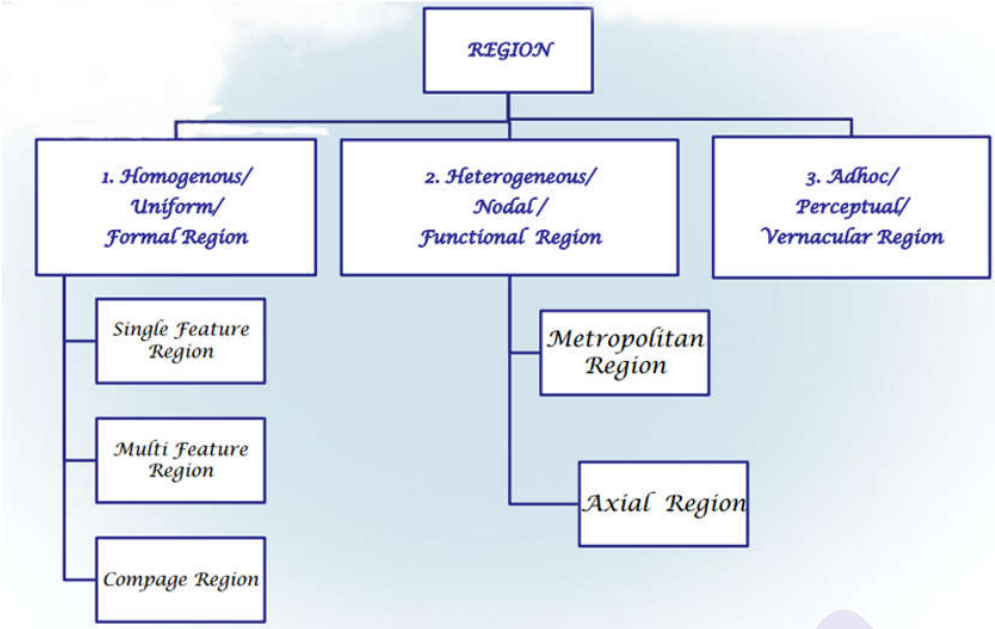
The **economic region was the main focus of regional research from the 2930s to the 2970s.** Quite substantial results were reached in that field. **During the last forty years, regional geography has ceased to appear central to most geographers.** In fact, the new interest in **place and territory shows a renewal in this field much more** than a decline. Some geographers are, however, very critical of the regional idea.

Some important regions

- Global regions
- Continental regions
- Geographical regions
- Planning Regions
- Palaeogeographic Regions
- Physiographic Regions
- Historical Regions
- Tourism regions
- Natural regions
- Natural resource regions
- Hydrological regions
- Religious regions
- Political regions
- Socio Cultural Region
- Administrative regions
- Local administrative regions
- Traditional or informal regions
- Functional region
- Military regions
- Culture Region
- Geographical regions

Typology of Region

The three main types of regions are **formal, functional, and vernacular** regions.



Formal region

- A **formal region** is a geographical region that is homogeneous and uniform within a specified criterion. This specified criterion could be physical, social, or political. Example – Himalayan Region, Sub-Tropical Region, etc.
- A formal region is also known as a uniform or homogeneous region.
- It is an area in which everyone shares in common one or more distinctive characteristics. This common characteristic could be a cultural value such as language, an economic activity such as the production of a certain crop, or an environmental property such as climate and weather patterns. Whatever the common characteristic is, it is present throughout the selected region.
- In certain formal regions, the characteristic may be predominant rather than universal, such as the wheat belt in North America, it is an area in which the predominant crop is wheat, but other crops are grown here as well.
- Its is further divided in 'Single feature Region '(ex. Physiographic regions of India),"Multiple Feature region' (ex. Resource Region or Planning region), and 'Compage region' (ex. Agricultural region of the World).
- **Whittlessy (2956) defined 'compage region' as a uniform region** where all the features of the physical, biotic and social environment are functionally associated with the human occupance.

Functional Region

- A functional region that displays a certain functional coherence, an interdependence of parts when defined on the basis of certain criteria is known as a functional region.
- A functional region, also known as a nodal region, organized around a node or focal point. It is sometimes referred as a polarized region and is composed of heterogeneous units such as cities, towns & villages which are functionally inter-related. Example – National Capital Region.
- The characteristic chosen to define a functional region dominates at a central focus or node and diminishes in importance outward.
- The region is tied to the central point by transportation, communication systems or by economic or functional associations.
- The functional linkage keep in changing in nature and volume.
- An example of a functional region is the circulation area of a newspaper. That area is centered around the city in which the newspaper is published in. The farther away from the city of circulation, the less people that read the newspaper (this phenomenon is known as distance decay).

Vernacular region

- A "vernacular region" is a distinctive area where the inhabitants collectively consider themselves interconnected by a shared history, mutual interests, and a common identity. Such regions are "intellectual inventions" and a form of shorthand to identify things, people, and places.
- Vernacular regions reflect a "**sense of place**," but rarely coincide with established jurisdictional borders.
- A vernacular region, also known as **Perceptual region or Adhoc Region**, is a place that people exist as part of their cultural identity.
- These regions vary from person to person. They emerge from a person's informal sense of place. An example of a vernacular region would be the Cultural region or Transitional regions, depressed areas, etc.

A planning region can be defined as a geographical region where designing and implementation of the development plan is possible for tackling of regional problems. It could be both formal & functional and generally transitional in nature: Example – Delhi Metropolitan Region.

Delineation of Region

Delimitation of a Naive region

Due to the complexity and contradictory nature of elements constituting the region, only vague and transitional boundaries can be delineated.

E.g. it is difficult to draw linear boundaries for a cultural region due to the transitional nature of the zones of cultural regions (Buddhist cultural zones in India).

The methods involved in the delimitation of the naive region are Flow analysis

In this method first, the core is identified, and based on primary data it is estimated that how far flow of goods and services or the traits of culture can be identified

This method can be used for classifying even the functional region.

E.g. R L Singh analysis of Sphere of Influence or Umland (write about vegetable supply, newspaper supply, etc.)

For the cultural region the elements of culture are identified say language, religion, dressing sense, etc. and based on their occurrence in surroundings, the regional boundaries can be vaguely drawn

Relative intensity analysis

Let's suppose (i) and (j) are the two segments of the space and Yi and Yj are the per capita income. The equation Yi-Yj gives the value which is the difference between the Per Capita Income of the two segments.

A geographer can fix criteria or a limit beyond which the heterogeneity between (i) and (j) is so high that they can be differentiated and classified as regions.

If the value is less than the criteria, (i) and (j) are homogeneous and can't be differentiated into two regions. This is the most accepted method which is applied to delimit the naive regions. Although, the boundaries can't be defined as the naive regions don't have boundaries that are clear.

Flow analysis

Delimitation of formal region

Formal regions have precise boundary limitations. E.g. 28 degrees C isotherm, administrative boundaries, etc.

Delineation of formal regions involves the grouping together of local units which have similar characteristics according to certain clearly defined criteria and which differ significantly from the units outside the region on the basis of certain chosen criteria.

The criteria can be unemployment rates, activity rate, migration trends, per capita income, etc.

The characteristics should differ significantly from units outside the region.

The delineation depends on the development objectives.

Variables for delineation of the formal region (homogeneous): Land use characteristics Demographic characteristics; Transport infrastructure; Social service and public utilities; Socio-economic structures.

There are two techniques for delineation of formal regions are detailed below:

Weighted Index Number Methods

Factor Analysis Method

Weighted Index Number Methods

In this method, some indices (parameters) are chosen and given weights, total weights for each part is separately calculated and areas with similar weights are carved out. This area is termed as 'region'.

Example: For identifying employment & income level delineation The study area is divided into several localities varying according to unemployment rates and per capita income levels. The aim is to isolate the main problem region; i.e. the area of economic malaise. Weights are assigned to each criterion and when taken together and weighted, one of the regions can be isolated

If delineation of the formal region is done on the basis of one criterion then we will use the Relative Intensity Analysis Method.

E.g. say regions (a) and (b) have Per Capita Income Xa and Xb, then these will be included in the same region if Xa=Xb or less than a limit.

If we consider more than one feature to delineate literacy, industries, per capita income then methods are:

Fixed index method

Variable index method

Cluster method

Fixed index method:

Under the fixed index method a number of characteristics (indices) common to regions are chosen. E.g. per capita income, unemployment, rate of industrialization.

An arbitrary weight is given to each index and a single weighted mean is obtained from each region.

Then contiguous regions with similar indices are grouped together in order to minimize variance within each group. E.g. HDI index- weighted mean of health indicators, education, and standard of living for a particular region is taken and then the region is delineated by fixing the criteria for high, medium, and low HDI regions (countries or states).

Variable index method

Variable weights are assigned to highlight levels of activities in different regions.

The weight given to each activity in each region is different and in accordance with the value or the volume regionally produced. For example, if region A is the wheat region and region B is coal region then the weight of a wheat index will be the largest in former and weight of coal index will be larger in later.

This method is good when criteria can be compared with each other.

However, in those cases where comparability is not possible (e.g. in cases where one feature is literacy and other is steel production), it becomes necessary to employ cluster method.

In variable index method different problems of a region are taken together and weighted. It is a simple way to delineate regions. However, choice of regional criteria and choice of weight is the problem.

Cluster method:

It is used to detect the homogeneous character of the structure of different regional units.

Parameters/variability is plotted on the same region and more concentration means more clusters. It is a statistical method.

For this purpose a study of income and trade, flows can be made for the purpose of comparison.

Here mapping techniques are used to trace the cluster where the interrelated variables are mapped by superimposing techniques.

Example- frequency of buses from one city to another, traffic zones, circulation of vegetables.

Cluster method is one of the most easiest and common techniques adopted by geographers and cartographers. E.g. agriculture, minerals, industrial map, rainfall, and soil map to get land-use of area.

Suppose if the map of India is taken, if we draw the rainfall map of India and above rainfall map, if we plot the soil map and above soil map if we plot water availability map, then we will find that there will be some area with high land use which have high availability of rainfall, soil, and water.

Various thematic maps superimposed of one variable layer over another helps in demarcating the boundary most common to all phenomena of the region.

Factor Analysis Method

In this method, each parameter is mapped out separately and then all the maps are kept one over the other. The common region that will be carved out after this exercise will form a region.

It is a more sophisticated approach.

Smith used this method for delineating economic-health regions.

Smith identified 24 industrial criteria on a local employment exchange area base and 24 socio-economic criteria on a local authority base. Many of these criteria are interdependent.

The factor analysis method can be used to isolate these factors and to group areas on the basis of factor loadings.

Smith identified 'industrial change' and industrial structure' as major industrial factors, and 'population change' and 'social structure' as major socio-economic factors. These factors help in delineating economic health regions.

Delineation of functional region

The delineation of the functional region involves grouping together of local units that display a considerable degree of interdependence.

The concern is thus more with flows linked to a central point rather than with uniformity of the region as a whole

Two basic approaches to functional regional outlines:

Flow analysis based on actual observations of what people do

Gravitational analysis based on theoretical observation of what people might do.

Flow analysis

Flow analysis builds up functional regions on the basis of the direction and intensity of flows between the dominant centre and surrounding satellites.

Each flow will show decreasing intensity as it becomes more distant from the main centre and increasing intensity as it approaches another centre.

The boundary of the sphere of influence of the dominant centre will be where the flow intensity at a minimum. When the flow significantly drops that means interaction/origin's influence drops. In terms of distance, in a particular direction, there is the influence of the node and there onwards it drops. This gives cut off points. Tentative delineation is done.

In the flow analysis, the processional regions are demarcated based on the direction and intensity of flow between the principal center and the sub-cities around it. The flow decreases according to the distance from the principal center and the effect increases as it approaches the other center. Where the flow intensity around the principal center is minimal, there is a limit to the circumference of the effect of that center.

This flow can be of any kind,

economic – such as cargo or passenger, road or rail.

objective/Purpose – shopping or commuting

social – the flow of students or hospital patients

political – the flow of government expenditure

Information – telegrams, newspaper, telephone calls, etc.

Flow analysis upsc

Gravitational analysis

The basis of the origin of gravity analysis lies in Newton's theory. It is based on the possible value of human interaction.

It is concerned with theoretical forces of attraction between centres rather than actual flow.

As such it is regarded as 2nd best approach but if used with care as it can provide a good guide to actual flows and more importantly the potential flows between centres.

This rapidly developing field of "social physics" as developed by Zipf, Reilly, Stewart, Stouffer and others is based on a probability view of human interactions and originates from the application of analogous reasoning to Newtonian physics. It means that this method is based on the probability of attraction of flow (flow of goods, services, people, etc) by centre from nearby areas.

This gravity model assumes that interaction between two centres is proportional to the mass of centres like population, employment, income, expenditure, retail trading, etc. and is inversely proportional to the square of the distance between centres like miles, time and intervening opportunities.

2.5 PLANNING REGIONS: NEED, CHARACTERISTICS, AND HIERARCHY

Concept Planning Region

- **A planning region is a segment of territory over which economic decisions apply.** The term planning here means taking decisions to implement them in order to attain economic development.

- **Planning regions may be administrative or political regions such as state, district, or the block** because such regions are better in management and collecting statistical data. Hence, the **entire country is a planning region for national plans**, the **state is the planning region for state plans** and **districts or blocks are the planning regions for micro-regional plans**.
- For proper implementation and realization of plan objectives, a planning region should have a fairly homogeneous economic, topographical and socio-cultural structure.
- **It should be large enough to contain a range of resources that provides it economic viability.**
- It should also **internally cohesive** and geographically a contagion area unit.
- Its resource endowment should be that a satisfactory level of product combination consumption and exchange is feasible.

Need of Regional Plan

A city or any area might grow in size and hamper the development of its surrounding area. Over the decades it starts competing with the surrounding areas and this results in imbalance. It creates economic as well as functional imbalance in areas. Increases migration, decreases efficiency, results in undue waste of resources and might also find it difficult to meet its needs. To prevent such imbalance regional plans are very much required.

It helps in reducing disparities, promoting growth, promoting sustainable development, economic growth of the collective region based on its potential. Also, issue of migration is also solved to an great

extent because the required facilities are more evenly distributed rather than being concentrated in a specific urban area. These plans ensure a much better connectivity within the region and take care of future growth.

Characteristics: planning Region :

- It should be large enough to contain a range of resources, conditions and attributes so as to serve a desired degree of economic viability and at the same time not too large to make the comprehensive approach too general.
- Its resource position is such that a satisfactory level of product combination for consumption and for exchange would be feasible.
- Planning region is essentially operational in character therefore a high degree of flexibility and elasticity should be maintained in the process of regional delineation.
- The internal homogeneity of the resources should be logically linked up.
- The region should be internally cohesive (closely connected).
- The region should be geographically contiguous which can be divided into plain, hilly tract, coastal belt etc.
- 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 accessed 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. It should be big enough to permit the major part of labour requirements in any employing centre to be met from within the region.
- It should have homogeneous economic structure, i.e, the variation in local proportions of employment and output in agriculture, industry and services should be within a narrow range.
- It should have one or more growth points.
- All the parts of the region should be inter dependent.
- There should be common appreciation of local problems and common aspirations and approaches to their solution; it should permit and

encourage competition but not rivalry or apathy between one area and the other.

Hierarchical of Planning Regions

In multi level planning there is certain hierarchy of regions. WE can classify it in many ways depending on chosen criterion/criteria. One such classification on size criterion is here.

Macro Regions

Macro region is naturally bigger. Macro region can be a state of even a group of states, if the states of a country are not big enough. A Macro-major region can be a zone in a country, which may comprise of a few States. For example, in India there are East, West, North, South and Central Zones and 'Zonal Councils' of which function is mutual Consultation, developing cooperation and mutual counseling.In a sense macro regions are second in hierarchy, next to the national level. It is also possible that a physical macro region may comprise parts of different states of a country or project planning purposes. (e.g., big river valley projects, an electric grid of different states, and, for the purpose of a particular activity (facility) planning) the macro region ill be parts of different states. State boundaries are not respected in the sense that the macro region may transcend or cut-across administrative boundaries of the states of a country. A macro region may not be uniform or homogeneous in all respects. It may ave homogeneity in one respect (physical complimentarity) and may have heterogeneity n other respect (administrative boundaries). A macro region should have a common resource base and specialization in that resource base, so that production activities can develop on the principle of comparative advantage based on territorial division of labor.(India has been divided into 22 to 20 macro regions-agro-climate or resource regions).The planning Commission of India would have just 5 zonal councils-Eastern, Northern,Central, Western and Southern comprising of certain states but beyond this there is no macro-regionalization in India.These so-called macro regions of India have to have inter state cooperation in the matter of utilization of river water and electricity grids etc.

Meso Regions

Meso region can be identified with a 'division' of a state. Chattisgarh Region,Bundelkhand Region, Baghelkahand Region, Mahakoshal region is usually a sub-division of a state, comprising of several districts. There should be some identifiableaffinity in the area which may even facilitate planning. It can be cultural or administrative region and it will be even better if it is a homogeneous physical region

Micro Regions

In multi-level planning, district is the micro region. It becomes the lowest territorial unitof planning in the hierarchy of planning regions. The most important reason why districtis the most viable micro region for planning is the existence of database and compactadministration. This is the area, which is viable for plan formulation with administrationfor plan implementation and monitoring.A metropolitan area can be one micro region and the area of influence can be another micro region. A nodal point is also a micro region, though in many cases micro regionsare basically rural areas, which may have a number of minor nodes without anyorganizational hierarchy influencing the entire area. The basic characteristic of a microregion is its smallness. There can be some specific micro regions such as belts of extraction of mineral or a reclaimed area, or a not-so-big command area of an irrigational project.

Micro – Minor Region:

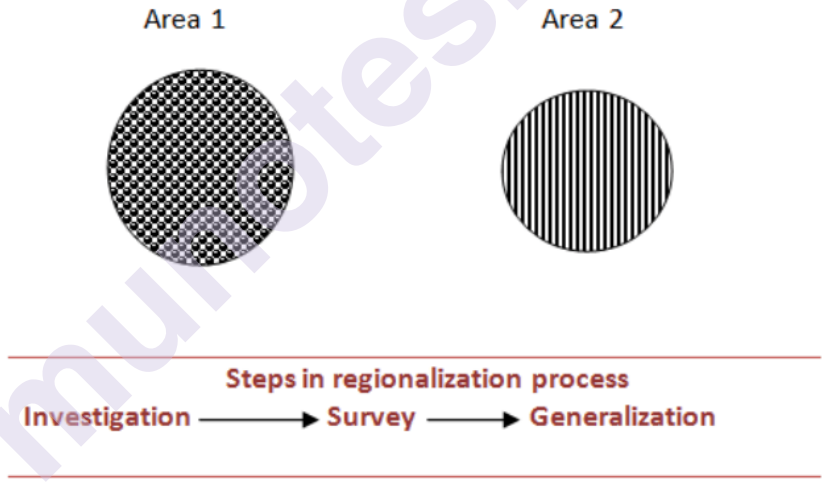
This is the region which is associated with, what is called, the grass-root planning. Amicro-minor region can be a block for which also data exists now and for which theremay be a plan. (So far as the quality of data is concerned, there is hardly any activity, or sector, or region or field for which data is not cooked by the vested interest groups: but,that is another story).The block level plan is integrated with the national plan, through the district and statelevel plans. A block level plan is not surgically cut portion of the district plan, which hasits own logic and linkage.At block level, most of the officers will be more concerned with the implementation of the plans than formulating the plans. At block level, the main exercise will be to take intoaccount of the physical and human resources and to find out the prime moving activitieswhich will enable the block people to make best use of the development potential of the block to meet the basic needs of the people.Minimum needs can be satisfied with the production of basic goods with the help of lowentropy local resources. Yet it cannot be said that 'external help' will not be necessary.Infrastructure support has to come from the developed regions. Infact, planning of thedevelopment of the transport, communication, banking, education, medical and manyservice facilities has got to be done at the national level.At the panchayat level, basic goods and services can be arranged through the efforts of the local people. Many activities can be so planned that they improve the socio-economicconditions of the people without being the part of the national plan. Several activities can be undertaken with the cooperation of the local people, with minimum of financial andreal resource support from outside e.g., development of dairying, animal husbandry, pisciculture, poultry, soil conservation measures, optimization of the cropping pattern,

.The most important test of micro-minor planning is that the people need not look towards the centre for it. Now days, a lot of importance is given to 'water harvesting'.Water is proxy for the use of modern inputs in agriculture. Much of the run-off water goes waste and the infiltration rate is also low. If this water can be harvested, not onlythe run-off water can be

stored, but sub-soil water reserves can also become rich. Micro-minor watershed development program probably will be the most important program for a country like India. The optimum land use planning can start from the micro-minor area only.

2.6 DEMARCATION OF PLANNING REGIONS: PRINCIPLES, CRITERIA, AND METHODS OF REGIONALIZATION

- **Regional delineation is the first step in the preparation of any regional development plan to ensure the tentative operational area of planning. within the planning region, the frame of all regional studies could be undertaken and development envisaged.**
- Regionalization is the process of **dividing complexity with respect to a region into simple understandable forms**.
- The essence of regionalization is **uniformity/homogeneity of a region** so the method should be such that the region so created has marked dissimilarity with the neighboring area (Area 2 and Area 2).

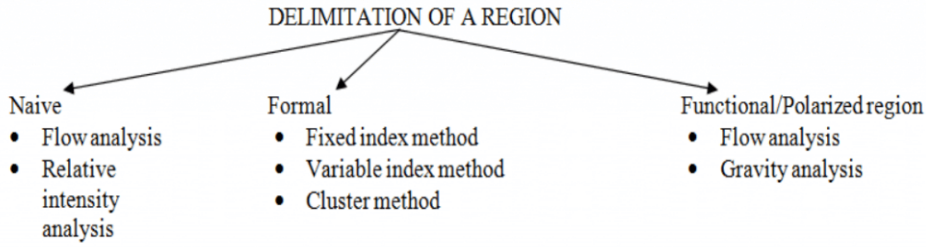


- **Steps in the regionalization process involve investigation of the area** where regionalization attributes are to be applied, **then there will be a thorough survey of the area** under consideration which would decide the parameters on which the regionalization is to be done (e.g. region with a high density of population). After the survey of an area with respect to the given parameter is done, **there will be generalization based on the above parameters** (e.g. areas with a population density of 300, 400, etc.
- **Regionalization is based on the investigation**. The investigation includes the identification of variables which has bearing on a large number of other variables existing in a given space. (E.g. variables in population include population density, age, etc.)

- The **next step in regionalization is a reconnaissance survey which is conducted by more than one observer,** thus giving non-coinciding boundaries for the same area.
- **The generalization is done wherein the largest number of coinciding interactions is identified.**

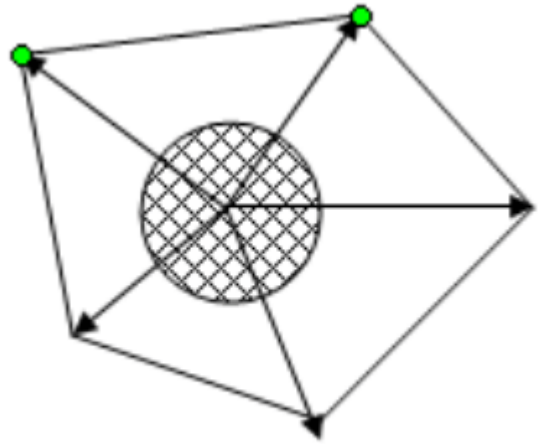
Different approaches to regionalization

- **Till World War II empirical approach was followed** e.g. flow analysis
- **During the phase of Quantitative Revolution statistical approach was followed.** e.g. Gravity Models
- **During the Critical Revolution, empirical cum statistical tools were employed** in methods of regionalization. E.g. Delhi NCR.
- **Empirical approach**
- This approach was popular till World War II
- It was based on observation and assessment for the purpose of demarcation of a region.
- Here the region is demarcated based on the observation of the people.
- The drawback of this approach lies in the fact that there is no clear demarcation of a region based on this method
- **Statistical approach**
- Due to the Quantitative Revolution gravity models were used for the precise demarcation of a region.
- After the 2nd World War geographers used scientific techniques and precisely demarcated a region from its neighbor regions.
- The sphere of influence of a region was demarcated by using the law of retail trade which states the area of influence of a city or a region in providing goods and services (trade) to adjacent regions by using statistical methods (formulas).
- **Empirical cum statistical approach:**
- With Critical Revolution in geography, geography is a subject in humanity where some flexibility is required as man is involved, and the scientific approach does not last long.
- Thus, there was a need for empirical cum statistical approach. This approach got tremendous support. For example demarcation of the NCR region of Delhi involves both a statistical approach (area to be included in NCR) and an empirical approach (migration of people in NCR).



Delimitation of a Naive region

- **Due to the complexity and contradictory nature of elements constituting the region, only vague and transitional boundaries can be delineated**.
- E.g. it is difficult to draw linear boundaries for a cultural region due to the transitional nature of the zones of cultural regions (Buddhist cultural zones in India).
- The methods involved in the delimitation of the naive region are
- **Flow analysis**
- In this method first, the **core is identified**, and based on primary data it is estimated that how far flow of goods and services or the traits of culture can be identified
- **This method can be used for classifying even the functional region.**
- E.g. R L Singh analysis of Sphere of Influence or Umland (*write about vegetable supply, newspaper supply, etc.)*
- **For the cultural region the elements of culture are identified say language, religion, dressing sense, etc.** and based on their occurrence in surroundings, the regional boundaries can be vaguely drawn
- **Relative intensity analysis**
- Let's suppose **(i) and (j) are the two segments of the space** and **Yi and Yj are the per capita income**. The **equation Yi-Yj gives the value** which is the difference between the Per Capita Income of the two segments.
- A **geographer can fix criteria or a limit** beyond which the heterogeneity between (i) and (j) is so high that they can be differentiated and classified as regions.
- **If the value is less than the criteria, (i) and (j) are homogeneous and can't be differentiated into two regions.** This is the **most accepted method** which is applied to delimit the naive regions. Although, the boundaries can't be defined as the naive regions don't have boundaries that are clear.



Flow analysis

Delimitation of formal region

- **Formal regions have precise boundary limitations.** E.g. 28 degrees C isotherm, administrative boundaries, etc.
- **Delineation of formal regions involves the grouping together of local units which have similar characteristics according to certain clearly defined criteria and which differ significantly from the units outside the region on the basis of certain chosen criteria.**
- The criteria can be **unemployment rates, activity rate, migration trends, per capita income, etc.**
- The characteristics should differ significantly from units outside the region.
- The **delineation depends on the development objectives.**
- **Variables for delineation of the formal region (homogeneous)**: Land use characteristics Demographic characteristics; Transport infrastructure; Social service and public utilities; Socio-economic structures.
- There are **two techniques for delineation of formal regions are detailed below:**

1. Weighted Index Number Methods
2. Factor Analysis Method

Weighted Index Number Methods

- In this method, **some indices (parameters) are chosen and given weights, total weights for each part is separately calculated and areas with similar weights are carved out.** This **area is termed as 'region**'.

- Example: For identifying employment & income level delineation The study area is divided into several localities varying according to unemployment rates and per capita income levels. The aim is to isolate the main problem region; i.e. the area of economic malaise. Weights are assigned to each criterion and when taken together and weighted, one of the regions can be isolated
- If delineation of the formal region is done on the basis of **one criterion then we will use the Relative Intensity Analysis Method.**
- E.g. say regions (a) and (b) have Per Capita Income Xa and Xb, then these will be included in the same region if Xa=Xb or less than a limit.
- If we consider **more than one feature to delineate literacy, industries, per capita income then methods are**:
- **Fixed index method**
- **Variable index method**
- **Cluster method**
- **Fixed index method**:
- Under the fixed index method a number of characteristics (indices) common to regions are chosen. E.g. per capita income, unemployment, rate of industrialization.
- An arbitrary weight is given to each index and a single weighted mean is obtained from each region.
- Then contiguous regions with similar indices are grouped together in order to minimize variance within each group. E.g. HDI index-weighted mean of health indicators, education, and standard of living for a particular region is taken and then the region is delineated by fixing the criteria for high, medium, and low HDI regions (countries or states).
- **Variable index method**
- Variable weights are assigned to highlight levels of activities in different regions.
- The weight given to each activity in each region is different and in accordance with the value or the volume regionally produced. For example, if region A is the wheat region and region B is coal region then the weight of a wheat index will be the largest in former and weight of coal index will be larger in later.
- This method is good when criteria can be compared with each other.
- However, in those cases where comparability is not possible (e.g. in cases where one feature is literacy and other is steel production), it becomes necessary to employ cluster method.

- In variable index method different problems of a region are taken together and weighted. It is a simple way to delineate regions. However, choice of regional criteria and choice of weight is the problem.
- **Cluster method:**
- It is used to detect the homogeneous character of the structure of different regional units.
- Parameters/variability is plotted on the same region and more concentration means more clusters. It is a statistical method.
- For this purpose a study of income and trade, flows can be made for the purpose of comparison.
- Here mapping techniques are used to trace the cluster where the interrelated variables are mapped by superimposing techniques.
- Example- frequency of buses from one city to another, traffic zones, circulation of vegetables.
- Cluster method is one of the most easiest and common techniques adopted by geographers and cartographers. E.g. agriculture, minerals, industrial map, rainfall, and soil map to get land-use of area.
- Suppose if the map of India is taken, if we draw the rainfall map of India and above rainfall map, if we plot the soil map and above soil map if we plot water availability map, then we will find that there will be some area with high land use which have high availability of rainfall, soil, and water.
- Various thematic maps superimposed of one variable layer over another helps in demarcating the boundary most common to all phenomena of the region.

Factor Analysis Method

- In this method, **each parameter is mapped out separately and then all the maps are kept one over the other. The common region that will be carved out after this exercise will form a region.**
- It is a more sophisticated approach.
- **Smith used this method for delineating economic-health regions**.
- Smith identified **24 industrial criteria** on a local employment exchange area base and 24 socio-economic criteria on a local authority base. **Many of these criteria are interdependent.**
- The factor analysis method can be used to isolate these factors and to group areas on the basis of factor loadings.

- **Smith identified 'industrial change' and industrial structure' as major industrial factors, and 'population change' and 'social structure' as major socio-economic factors.** These factors help in delineating economic health regions.

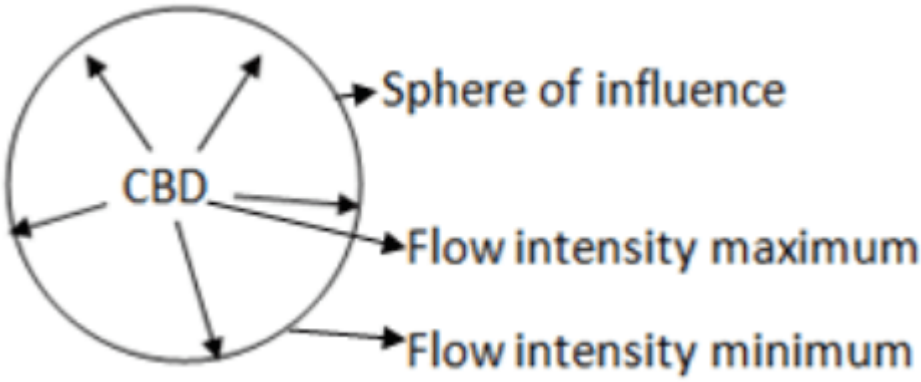
Delineation of functional region

- The **delineation of the functional region involves grouping together of local units that display a considerable degree of interdependence**.
- The concern is thus more with flows linked to a central point rather than with uniformity of the region as a whole
- Two basic approaches to functional regional outlines:
- **Flow analysis** based on **actual observations** of what people do
- **Gravitational analysis** based on **theoretical observation** of what people might do.

Flow analysis

- **Flow analysis builds up functional regions on the basis of the direction and intensity of flows between the dominant centre and surrounding satellites.**
- Each flow will show decreasing intensity as it becomes more distant from the main centre and increasing intensity as it approaches another centre.
- **The boundary of the sphere of influence of the dominant centre will be where the flow intensity at a minimum**. When the flow significantly drops that means interaction/origin's influence drops. In terms of distance, in a particular direction, there is the influence of the node and there onwards it drops. This gives cut off points. Tentative delineation is done.
- In the flow analysis, **the processional regions are demarcated based on the direction and intensity of flow between the principal center and the sub-cities around it**. The flow decreases according to the distance from the principal center and the effect increases as it approaches the other center. **Where the flow intensity around the principal center is minimal, there is a limit to the circumference of the effect of that center**.
- This flow can be of any kind,
- **economic –** such as cargo or passenger, road or rail.
- **objective/Purpose** – shopping or commuting
- **social –** the flow of students or hospital patients

- **political –** the flow of government expenditure
- **Information** – telegrams, newspaper, telephone calls, etc.



Gravitational analysis

- The basis of the origin of gravity analysis lies in **Newton's theory**. It is based on the **possible value of human interaction.**
- **It is concerned with theoretical forces of attraction between centres rather than actual flow**.
- As such it is regarded as **2nd best approach but if used with care as it can provide a good guide to actual flows and more importantly the potential flows between centres.**
- This rapidly developing field of **"social physics"** as developed by Zipf, Reilly, Stewart, Stouffer and others is based **on a probability view of human interactions and originates** from the application of analogous reasoning to Newtonian physics. **It means that this method is based on the probability of attraction of flow (flow of goods, services, people, etc) by centre from nearby areas.**
- This **gravity model assumes that interaction between two centres is proportional to the mass of centres** like population, employment, income, expenditure, retail trading, etc. **and is inversely proportional to the square of the distance between centres** like miles, time and intervening opportunities.

MATHEMATICALLY

$$F=G(MiMj)/Rij^2$$

Here,
F= Gravitational force between towns and i and j
Mi and Mj= Masses of two centres
Rij= distance between two centres
G= constant

Reilly in his Law of Retail Gravitation gave the following formula

$$N1/N2=(d1/d2)^2$$

Problems in delineation of a region

- **Lack of correlation between regions defined according to different criteria.**
- Dynamic nature of regional activities
- It is unlikely that regional boundaries defined according to both functional and formal criteria would be closely matched.
- **In Gravity Model, it is not easy to calculate M2, M2, R.**
- The **concept of distance is static.**

2.7 PERROUX'S GROWTH POLE THEORY AND REGIONAL PLANNING

Growth Pole and Growth Centre Theory

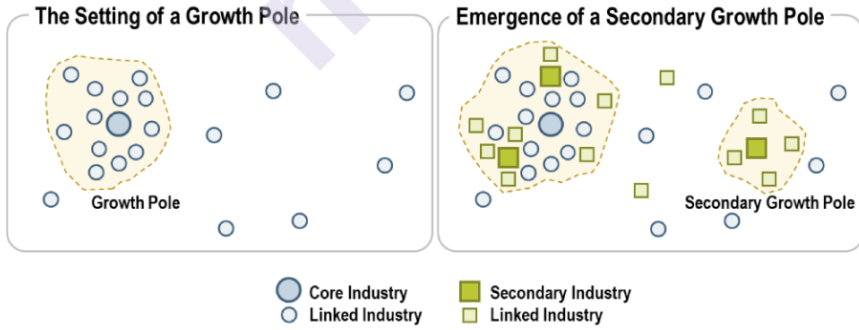
- Economic development is the **highest coveted goal** for an economy and nation.
- Various policy frameworks, economic plans, strategies are formulated by respective govt. to resurrect the economic stagnancy
- The theory of **Growth Pole & Growth Centre have been proposed by French economists with a view to resurrecting the French economy** with propulsive growth in a **short span of time**.
- Growth Pole Theory is an **inductive economic model** with a geographical analysis of space. ***(Inductive means from particular to general)***
- **Growth Pole was proposed by Francois Perroux in 2955** as a part of economic planning in France, He was concerned with the phenomenon of economic development and with the process of structural change.
- The concept of **Growth Centre however was proposed by Boudeville** as a part of his studies in Minas Gerais (Iron ore mines-largest in Brazil).
- Boudeville gave a **regional character and a specific geographic content** to Perroux's conception.

Growth Pole Theory

- **Francois Perroux attempted to explain how the modern process of economic growth deviated from the stationary conception of equilibrium growth**. His arguments were **based on Schumpeter's theories of the role of innovations and large-scale firms.**
- In Schumpeter's analysis, **development occurs as a result of discontinuous spurts in a dynamic world**. The cause of discontinuous spurts is the innovative entrepreneur whose activities

take place in large-scale firms. These firms are able to dominate their environment in the sense of exercising reversible and partially reversible influences on other economic units by reason of their dimension and negotiating strength, and by the nature of their operations.

- A **Growth Pole (GP) is a dynamic and highly integrated set of industries** organized around a **propulsive leading industry.**
- E.g- the TISCO plant (Iron & steel) which leads to the establishment of a dynamic & integrated set of industries around it and is linked to it. Then the whole region around this TISCO will be known as the Growth Pole which will propel the growth of the whole region.
- The **central idea of the growth poles theory is that economic development, or growth, is not uniform over an entire region, but instead takes place around a specific pole (or cluster)**. This pole is often characterized by **core (key) industries** around which linked industries develop, mainly through **direct and indirect effects.** Core industries can involve a wide variety of sectors such as automotive, aeronautical, agribusiness, electronics, steel, petrochemical, etc.
- **Direct effects imply the core industry is purchasing goods and services from its suppliers** (upstream linked industries) **or providing goods and services to its customers** (downstream linked industries).
- **Indirect effects can involve the demand for goods and services by people employed by the core and linked industries** supporting the development and expansion of economic activities such as retail.
- The expansion of the core industry implies the **expansion of output, employment, related investments, as well as new technologies and new industrial sectors.**



Growth Pole Model

The growth pole model is based on following postulates:

1. **Concept of economic space:** This theory was devised to revive France's economy. Hence we are talking mainly about the economy.
2. **Concept of a leading industry:** A leading industry is one that is basic and fundamental to the growth of other complementary, parasitic,

peripheral industries. Cotton Textile was the leading industry in Lancashire which invited industries, manufacturing machinery (complementary industry) for cotton textile as the machines were demanded by the cotton textile industry.

3. **Concept of the propulsive firm:** A propulsive firm means the accumulation of factors of production and the risk-taking capacity to venture into new economic sectors. A firm can be internal to an industry that functions as a part of the industry to propel its growth and proliferation. A Firm can also be external to the industries which can develop certain industries in various economic sectors.

4. **Concept of polarisation:** Polarisation means centralization (concentration) of factors of production, resources- both physical & human, labour- both skilled & unskilled in an area. The place which develops infrastructure grows in centrality and pulls capital, resources, labours, entrepreneurship from the surrounding area. This is an essential stage for the development of the growth pole.

5. **Concept of linkages:** Linkages means the forward and backward linkage of an industry or an economic system that is functional and interdependent and characterized by epiphytic (parasitic) tendencies E.g. Motor vehicles industry has forward linkages with the marketing, advertising, insurance, and backward linkages with iron & steel industry, rubber industry, etc Backward linkage: An industry which encourages investment in the earlier stage of production by expanding its demand for inputs Forward linkage: An industry which encourages investment in the subsequent stage of production. E.g: Loan and Banking services requirement by the motor vehicle industry

6. **Concept of Agglomeration**: Agglomeration means the **accumulation of a number of basic & heavy industries with their respective set of ancillary industries and their linkage**. It involves the **growth of infrastructure, R&D**.

Stages of Development

1. **STATIONARY GROWTH:** It is the stage of economic stagnancy and no utilization of resources, immobile capital, immobile capital & labour, and lesser propensity to development.

2. **CENTRALISATION:** It means factors of production are moving towards the economic space and new ventures, economic activities have been initiated

3. **POLARISATION:** It reflects the cumulative causation as suggested by Myrdal and a leading industry or a propulsive firm develops at the point of centralization over the economic space. In polarisation, the economic growth has started and the backwash effect (by Gunner Myrdal) can be seen which drains out the resources from surroundings, rendering them poor and backwardness surrounds the growth pole.

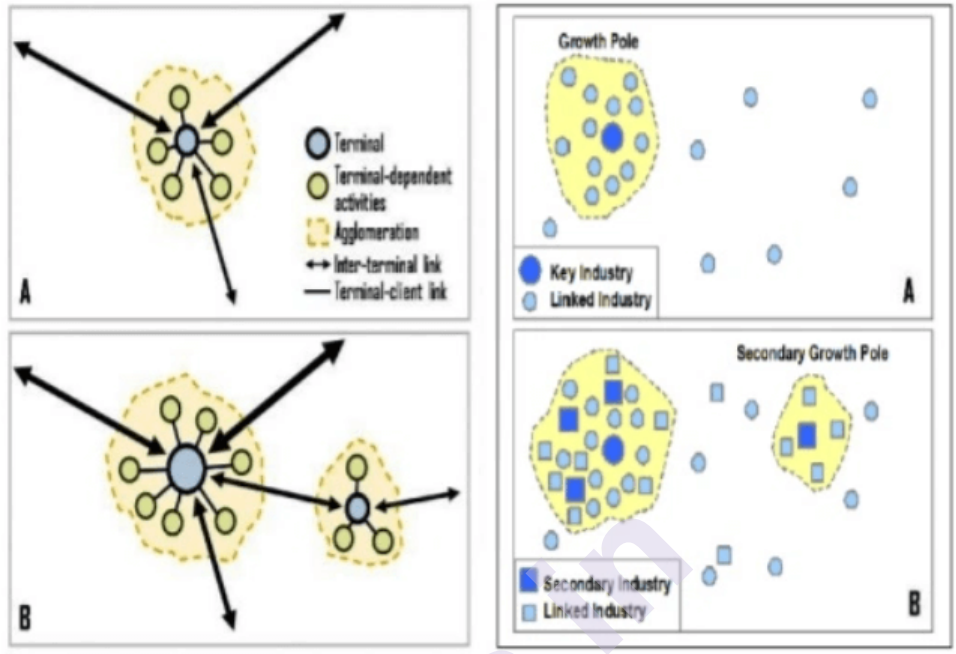
4. **AGGLOMERATIVE PHASE:** The backwash effect is more accentuated and the surrounding areas are desertified while the centre develops into the growth pole (set of integrated and dynamic industries) and it is disproportionately larger than the other urban centres. Thus, the growth pole is developed over the economic space where polarisation and agglomeration have taken place.

5. **TRICKLE DOWN:** This is the last phase of Growth Pole development. Trickle-down is synonymous to the spread-out effect (no scope for further development in the Growth Pole region) as suggested by Gunner Myrdal. Trickle-down was coined by Hirschmann. The benefits spread out in the otherwise desertified region. This stage is marked by

- i) Decentralisation of industries
- ii) Dispersal of capital investments
- iii) Diffusion of innovation
- iv) Diversification of industries (venturing into other industries or products)
- **Thus** the whole landscape develops and economic equilibrium is established and due to the trickling down of benefits, the backward areas can be developed into developed areas.

  Keeping in mind the Growth Pole Concept, India in 2nd Five Year Plan (Nehru- Mahalonobis Model) has established Iron & Steel Plant in Durgapur, Bhillai, and Rourkela which will act as leading industry and result in the development of the area and ultimately by Trickle Down effect. But it has not achieved that much due to any trickle-down effect.

Terminal flow of the growth pole



Critical Evaluation

1. The Growth Pole concept was intended for rapid economic growth in a short span of time. But **in the place of its origin, it failed as reflected in the "Paris and the French Desert"** (It means Paris developed and the surrounding area didn't due to no trickle-down effect)

2. Trickle-down stage and decentralization etc. have not operated the way it was proposed in the model. Growth Pole kept on growing at the cost of surroundings and benefits could not outgrow in the backward areas and it led to an ever-widening regional disparity.

3. Growth Pole was projected as an alternative model to the CPT (Central Place Theory) where an idealistic distribution of various centres (production, service provider centres) were organized. But it could not serve the purpose of the overall development of a country.

4. Economic space has been criticized by many scholars and Boudeville replaced it with geographical space. Economic space remains a mere fanciful idea, while geographical space was a larger reality. In the case of Paris, Economic space was feasible as Paris has minerals in the west, agriculture in the east, coasts in the south, and population in the North- such a thing is fanciful in India and the majority of other places.

Difference between Growth Pole and Growth Centre

Growth Pole	Growth Centre
French Concept proposed by Perroux	**American Concept proposed by Boudeville**
Based on **study of France with Paris & the surroundings**	Based on **study of Minas Geras (Brazil)**
Based on the idea of **economic space**, It is an economic & abstract concept and not exist in reality Requires large scale & Huge capital investment	Based on idea of **Geographical space** GC development is closely linked to development of GP
Economic space means where the factor of production can be centralized such that propulsive economic growth can be introduced on the basis of a leading industry or a propulsive firm. It means any point on the surface where resources, land, labour; enterprise can function together and produce the maximum results. Economic space follows the principle of optimum location as proposed in Weber's model, which is based on 3 principles- Profit maximization, distance minimization, and least cost. Economic space is based on polarisation or agglomeration effect, where a number of basic and heavy industries with their backward and forward linkages develop.	**Geographical space** means such location which are governed by the principle of accessibility, nearness, location, resource base or such geographical factors which themselves are responsible for propulsive growth. E.g.- The development of satellite towns along the major transport lines is a geographical space, where new industries can be installed as a part of urban decentralization. The location of the iron & steel industry in Chota Nagpur is the occupation of Geographic Space. Similarly, Minas Geras (Brazil) with rich deposits of iron ore and Manganese ore is a geographical space where a leading industry like iron & steel can be developed.
Based on **agglomeration effect** (3or more industries and their linkages)	Based on **cumulative effect** (can be based on one industry or firm)

Growth Pole is generally proposed at the National Level. It has inter-regional co-relation.	**Growth center is generally proposed at the regional/local.** An instrument of regional development. It promotes local goals and has intraregional characteristics
Can be applied in a country with a small geographical extent	Large geographical extent
Requisite of growth pole in **country is 2**	Growth centres **could be many**
Growth Pole functions at the **highest hierarchy**	Growth centre functions at **lower hierarchy**, below the Growth Pole
Growth Pole is the centre of diffusion of innovation, centre for research and development, capital accumulation, capital reinvestment, and employment generation.	**Growth centre is intended to utilize the local resources and develop the local or regional economy.** It does not intend to draw resources from all the places and can't have R&D
GP signify greater **centripetal forces** and behave as the largest economic magnet in a country. It seeks short span growth	It signifies **centrifugal forces and dispersal of economic activities**. It seeks overall growth and long-term growth.
GP has **negative results** even in the French experience. E.g. After the growth of Paris, the surrounding region was bereft of development and it was titled "Paris and the French Desert".	GC has **positive connotations** since it is resource-based development, diffused growth, decentralized, function at the regional level and it contemplates growth of while landscape.
GP is a mere economic concept and is based on industrial units, propulsive firms.	**GC is based on industries as well as the growth of services.** E.g – Schools, Colleges, Health services etc

R.P. Mishra:

- **Indianised the theory of GP and GC (by integrating GPT, CPT, and Spatial Diffusion Theory) in his own way and presented a new hypothesis on Growth Focii (GF).**

- **GF is a low-order functional, an economic hub** that functions at **Block/Tehsil level**. It was not based on industrialization rather it relies on the development of service centres.

- E.g A block-level market with an education centre, health centre, entertainment centre, evolving social institutions, social organizations, and development of social capital, making people more conscious, aware, knowledgeable to their growth perspectives, Thus, GF is based on the concept of local renaissance and development of the service sector.

- **It was to act below the growth centres and the growth point. Thus for the regional development perspective, the following model can be applied.**

Difference between Central Place theory (CPT) and Growth Pole theory (GPT)

CPT	**GPT**
CPT is **normative, deductive based** on idealistic assumptions.	It is an **empirical, inductive model based** on data surveys and observations.
CPT assumes that **equal distribution** of resources and settlements over the landscape.	GPT assumes the **unequal/ heterogeneous landscape**
CPT applies to the **fully developed landscape** of a country	GPT is based on **various stages of development**
It has a **complete picture and network of the various hierarchical patterns of function at different levels**. E.g. – 7 level hierarchy CPT is a much more comprehensive model of planning which includes GP at H2, GC at H2, Growth Pole at H3, etc.	**GP doesn't have a hierarchy and it is the single most important magnet of a country.**
CPT signifies diffusion, dispersal, decentralization	GPT signifies centralisation, polarisation, agglomeration
CPT is based on mainly the supply factor from various settlements at different hierarchical levels.	**GPT is based on demand and production.**

Based on services	**Based on industries, firms**, productions, manufacturing
CPT signifies **centrifugal forces** and the flow from **top to bottom.**	GPT signifies **centripetal forces** and **bottom to top.**

Check your Progress/Exercise

Q.1. Discuss in details of Perroux's Growth Pole Theory.

Q.2. explain the concept of Region and discuss the types of region

❖❖❖❖

3

UNDERSTANDING REGIONAL DEVELOPMENT

After going through this chapter, you will be able to understand the following features.

3.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the Concept of Development: Concept and indicators
- Understand the Regional disparities in development: Concept and measurements Know about the Spatial and Non-Spatial Models of Development with Special Reference to Rostow's Model and Myrdal's Model
- Understand the Strategies for regional development

3.2. INTRODUCTION

In this unit, we are going learn the concept of development, meaning and indicators of development.

As we know development is an integral part of human life. Development is not a short-term process it takes a long period because there are multiple dimensions of development measurements.

Suppose we want exclusive development; we should focus on every aspect or every indicator of development.

Development is qualitative tools of measuring the whole human life progress. Due to development, we can utilise all positional of resources in the region.

3.3. DEVELOPMENT: CONCEPT AND INDICATORS:

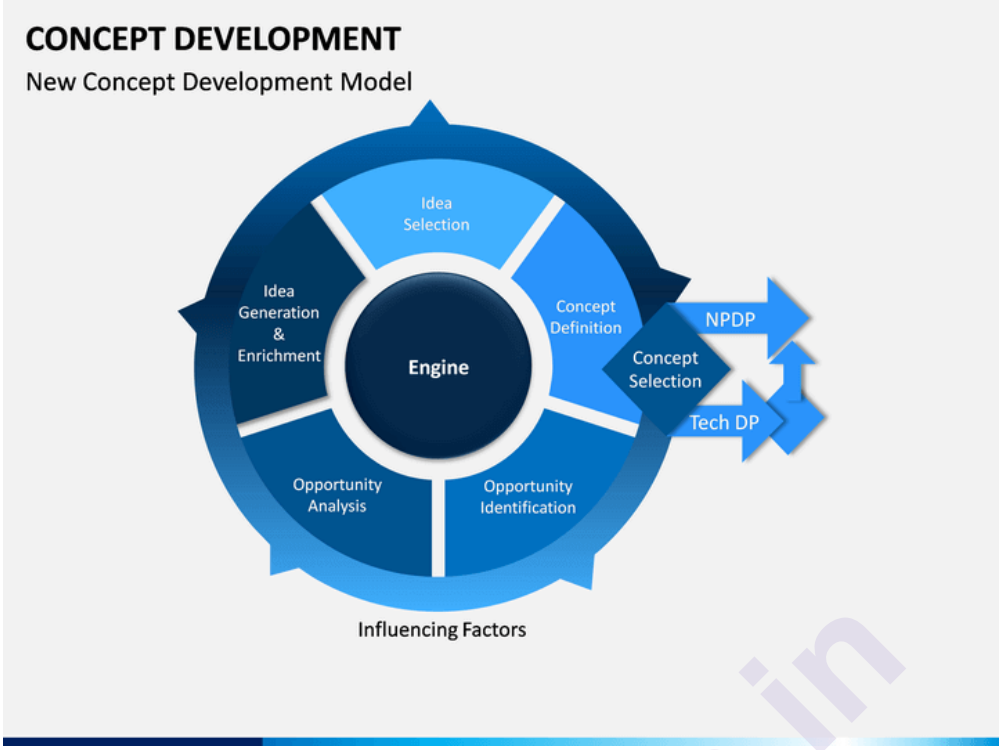
The Geography of development is all about how wealth and the quality of life of people living on our planet varies from place to place. We can study this on a local scale, and consider with our own community how different groups of people on one estate might be wealthier and have a better quality of life than others. We could look at development a national scale, and consider how health and wealth change across the British Isles (life expectancy is lower in Scotland than it is in England for example). The last scale we can look at is global because there are huge differences in the quality of life between countries and continents. There are 2 very broad groups of countries;

More Economically Developed Countries or MEDCs

Less Economically Developed Countries or LEDCs

There are a huge number of measures that can be used to measure the level of Development of a place. These measures can be classified as Social – relating to the development of the people of the place; Economic, relating to the finances and wealth of the place; and Political, relating to the political systems and freedoms afforded by the place. Some countries may have imbalances in these measures, so a country may have very high levels of wealth and economic development, but poor levels of political freedom so poor political and social development. It is therefore better to look at a NUMBER of different measures of development of places before coming to a judgment about its level of development. The most powerful individual number or measure is probable the Human Development Index, because it combines together economic and social measures into one figure. However, I quite like the Happy Planet Index as an alternative! Surely if people are ranked as happy then their country or region is developed!

Definition: Development means "improvement in country's economic and social conditions". More specially, it refers to improvements in way of managing an area's natural and human resources. In order to create wealth and improve people's lives. Dudley Seers while elaborating on the meaning of development suggests that while there can be value judgements on what is development and what is not, it should be a universally acceptable aim of development to make for conditions that lead to a realisation of the potentials of human personality.



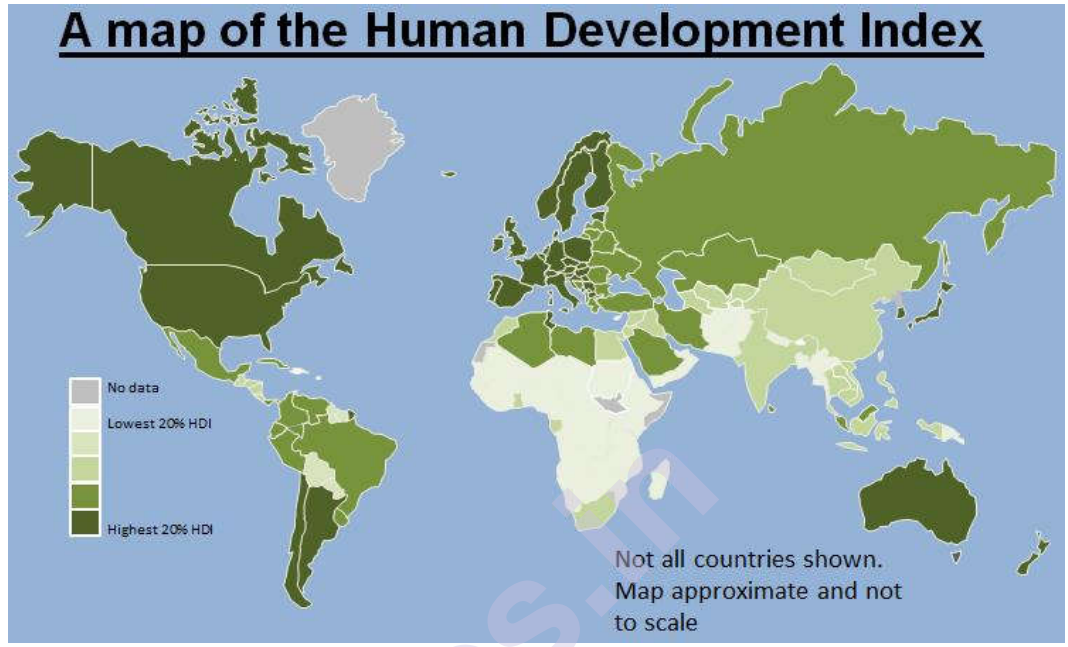
Indicators of development :

3. GNP -Gross National Product – how much money a country earns as a population excluding business taxes. This is a total sum, and shows the overall size of the economy. We need to be very careful when using this measure, as it does not take into account population size as shown in the example below. Brazil and the UK have very similar GNPs in 2033, but the UK is much richer per person as it has a smaller population.

	Brazil	UK
GNP (millions of US$)	2,307,628	2,366,544
Population size	393,000,000	63,380,000
GNP per person	30,920	37,457

2. GNI per head - Gross national income is a measure of the country's wealth. GDP is part of GNI. It includes the total value of goods and services produced within a country (i.e. its Gross Domestic Product), together with its income received from other countries (such as interest and dividends), minus similar payments made to other countries. So if a British-based company such as BP sends profits back to the UK our GNI is enhanced, whilst profits flowing out of the country from a company such as Nissan to Japan will count to Japan's GNI and not the UKs. GNI is therefore different to GDP because it includes it!

3. Human Development Index (HDI) – This is a composite (combined) measure that considers life expectancy, GNI and an education index to give a value between 0 and 3, 3 being the most developed. This is powerful as it includes both economic and social factors.



4. Birth Rates - How many babies are born per 3000 people in a population per year. We tend to find that the poorest countries have high birth rates, and wealthier countries have lower births rates. This is because poorer countries have high replacement rates to compensate for high infant mortality, poorer access to family planning and contraception, and a tradition for large family size to supplement a largely agricultural workforce.

5. Death rates - How many people die per 3000 people in a population per year. This is becoming less useful as a measure of development, as death rates fall due to imported medicine and technology in many poorer countries. It would be better to look at CAUSE of death, as in MEDCs it will be wealth and age related illnesses

6. Infant mortality - How many babies die per 3,000 live births per year. This is a useful measure as it indicates the medical systems in the country and how well the most vulnerable in society, the very young, are protected and looked after in their early years.

7. People per doctor - How many people there are for every doctor in a country or place. Again, this indicates how much money is available in a country for the training and recruitment of doctors, which has an instant knock on effect on the well-being and quality of life of a person.

8. Literacy rate - What percentage of the country is able to read and write as adults. This is another social measure, and helps to indicate the standard of education within a country or place.

9. Access to safe water - What percentage of people have access to sanitary and safe water that is free from bacteria and parasites. This is something we take for granted in the UK, but according to Water.org 780 million people lack access to safe water and 3.4million die every year from a water related disease.

30. Life expectancy - The average age a person can expect to live to at birth. This is a very useful indicator as it reveals how good food security, water quality, shelter and medical care are in a country.

3.4 REGIONAL DISPARITIES IN DEVELOPMENT: CONCEPT AND MEASUREMENTS

What is regional Disparity?

he word disparity comes from the Latin word disparitas, which means divided. In the modern day scenario the condition of being unequal is considered disparity.

Regional disparity means divergence or inequality of characters, phenomena or processes having specific territorial allocation and occurring at least in two entities of the territorial structure.

Regional disparity refers to differences between economic performance and welfare between different regions. Regional disparity means unbalanced spatial structures in some region or in different regions. Regional disparities are manifested in different conditions of life as well as in unequal economic and development potential. A good example of spatial disparity is the contrast between urban and rural areas.

There are various reasons for regional disparity.

Certain areas are more endowed than others, in terms of natural resources, these cover everything from minerals to cultivable land and river systems.

Some regions get neglected as others are well-connected, missing the chance of development. Some regions have been neglected historically.

Government policies also play an important role. The government sometimes focuses on few key regions and the others are left in a state of utter neglect.

Need for Balanced Regional Development

- Within democratic polity, growth and prosperity must exhibit **regional balance**. Thus a democratic government striving to achieve such balance is axiomatic.
- India is subdivided into 29 states differing in terms of their productive potential and the type of industry they can support. **The realization of their potential holds the key to increasing the competitiveness of the nation as a whole.**

- Regional disparity in development causes challenges like **violent conflicts, unplanned and haphazard migration** e.g. **Insurgency** in North-east and **Left wing extremism** in large parts of central and eastern states of India.

- The **sustainability of the growth rate and the goal of the country to achieve its development target will be difficult to meet unless India develops as an integrated whole of regional competency.**

Causes of Regional Disparity

- **Historical Factor**

- The British government and industrialists developed only those regions of the country which possessed rich potential for prosperous manufacturing and trading activities. Thus port cities like Bombay, and strategically important areas like Calcutta and Madras received initial development.

- In the absence of proper land reform measures and proper industrial policy, the country could not attain economic growth to a satisfactory level.

- **Geographical Factors**

- The difficult terrain surrounded by flood prone areas, hilly terrain, rivers and dense forests leads to increase in the cost of administration, cost of developmental projects, besides making mobilization of resources particularly difficult.

- Himalayan states like Himachal Pradesh, Northern Kashmir, Uttarakhand, North-Eastern states remained mostly backward due to its inaccessibility and other inherent difficulties.

- **Location Specific Advantages**

- Due to some locational advantages like availability of irrigation, raw materials, market, port facilities etc. some regions are getting special favour in respect of site selections of various developmental projects e.g. oil refineries are mostly located in close to sea.

- **Early Mover Advantage**

- New investment in the private sector has a general tendency to concentrate much on those regions having basic infrastructural facilities.

- Term-lending institutions and commercial banks tend to concentrate investments in the relatively more developed States.

- **Failure of Planning Mechanism**

- Local needs; one size fits all approach, lack of adequate resources, poor implementation of plans, lack of planning capacity at state level

reduced capacity of Planning Commission to ensure balanced development.

- **Restricted Success of Green Revolution**
- **Green revolution** improved the agricultural sector to a considerable extent through the adoption of new agricultural strategy of high yielding variety seeds, assured irrigation, provision of technical knowhow etc
- However, the benefit of green revolution were restricted to Punjab, Haryana and western Uttar Pradesh as this belt had advantage of irrigation facilities, were traditionally wheat growing states, with adequate policy support from State Governments which other areas lacked and couldn't reap benefits of Green Revolution.
- **Law and Order Problem**
- Extremist violence, law and order problem etc. have been obstructing the flow of investments into backward regions besides making flight of capital from backward states.

REGIONAL DISPARITIES – MEASUREMENTS:

Some of the important techniques in the measurement of disparities.

A. Composite Index Method

1. By taking a single indicator – e.g. Agriculture or industrial

C.D.I = Pi/PI x 300

- Where, CDI = coefficient of development factor 'i'
- Pi = % of factor 'i'
- PI = mean % value factor in the whole region.

2. By considering all the indices of development –

CID = Cdi3 + Cdi2 + Cdi3 + ... + Cdin / N

- Where, CID = Composite Index of Development
- N = No. of variables.
- Cdi = coefficient of development factor 'i'

B. Normalization/Standardization Method

- This is Prof. Kundus's method
- We have select the indicator for measuring the development.
- If we add the values of this indicator directly.

- The technique of division by mean i.e. x suggested by 'Kundu' is used for this purpose.
- Indicators are divided by their corresponding mean.
- After arranging these composite index values in descending order.
- Higher the value higher the development region.
- You make can understand the developed, moderate and backward levels of the region.

C. Ranking Method

- This is Prof. Ashok Mitra's Method.
- We select some of the indicators e.g. socio-cultural and economic prospects.
- We calculate the ranks of the values of each indicator.
- finally added the rank of each observation of each indicator, putting rank in descending order.
- If ranks are 3,2,3,4,…… n highest value and large.
- The lower the value higher is the development and vice versa.

D. 'Z' Score Method

- In this method score of each areal unit is divided by the average for the region as a whole, to calculate what is known as the 'z' score method.
- Summation of the 'z' score for all indicators of each areal unit indicates the level of development, the higher the value higher will be the development.
- 'Z' score is also calculated alternatively by subtracting the mean from actual values and dividing it by S.D.

3.5 SPATIAL AND NON-SPATIAL MODELS OF DEVELOPMENT WITH SPECIAL REFERENCE TO ROSTOW'S MODEL, MYRDAL'S MODEL

Rostow's Development Model:

At the end of the Second World War (3939-45), there was a renewal of interest in the subject of development economics, and the stages of growth once again preoccupied many scholars. As a non-communist manifesto, W. W. Rostow's stages of economic growth (3960, 3973) is a foray into positioning the sweep of modern economic history under capitalism into neat and hopeful epochs.

Geographers often seek to categorize places using a scale of development, frequently dividing nations into the "developed" and "developing," "first

world" and "third world," or "core" and "periphery." All of these labels are based on judging a country's development, but this raises the question: What exactly does it mean to be "developed," and why have some countries developed while others have not? Since the beginning of the 20th century, geographers and those involved with the vast field of Development Studies have sought to answer this question, and in the process, have come up with many different models to explain this phenomenon.

Prior to Rostow, approaches to development had been based on the assumption that "**modernization" was characterized by the Western world** (wealthier, more powerful countries at the time), which were able to advance from the initial stages of underdevelopment. Accordingly, other countries should model themselves after the West, aspiring to a "modern" state of capitalism and liberal democracy. Using these ideas, Rostow penned his classic "Stages of Economic Growth" in 3960, which **presented five steps** through **which all countries must pass to become developed.**

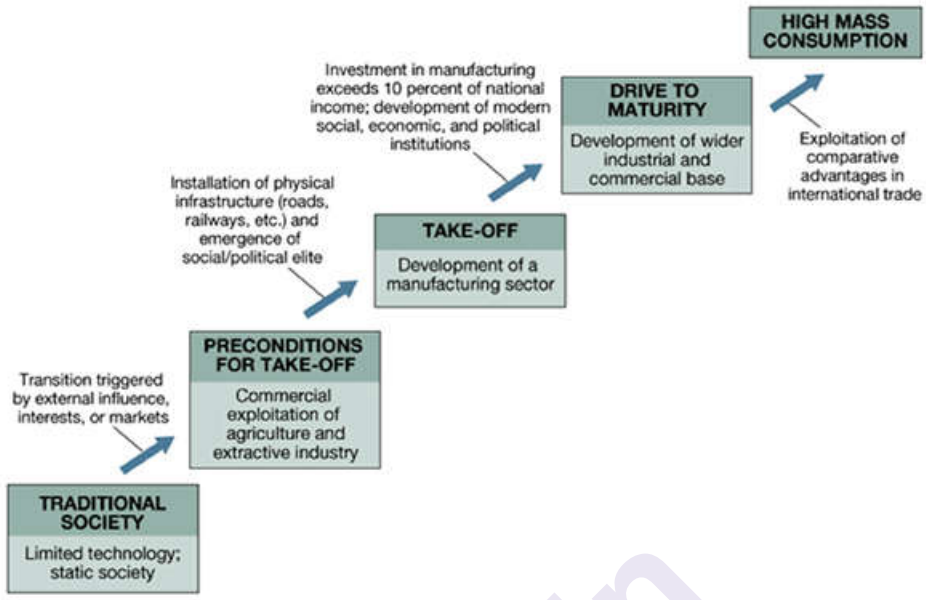
Rostow's Model of Stages of Economic Growth

Rostow's Stages of Growth model is one of the major historical models of economic growth. It was published by American economist Walt Whitman Rostow **in 3960.**

W. Rostow formulated the best-known **non-spatial model** in 3955 in which **five stages** of economic development were identified.

In his view, at the beginning, a traditional society witnessed a few stages before attaining the level of the age of mass consumption. Rostow's stages of economic development are shown below.

1. **Traditional society**
2. **Preconditions for take-off**
3. **Take-off**
4. **Drive to maturity**
5. **Age of High mass consumption**



3. Traditional Society

The traditional society has been defined as one where limited production functions are characterized by **pre-Newtonian technology**. The social structure is hierarchical, political power is confined in the hands of a feudal aristocracy. More than **75 percent of the population is engaged in agriculture i.e**. this stage is characterized by a subsistent, agricultural-based economy with intensive labor and low levels of trading, and a **population that does not have a scientific perspective on the world and technology**.

2. Preconditions to Take-off

The second stage is a transitional phase, the preconditions-, of which were initiated mainly by four forces: the **Renaissance**, the **New Monarchy**, the **New World** (Political revolution), and the **New Religion or the Reformation**. These forces were cardinal factors behind the changes in social attitudes, values, etc.

The **pre-conditions are brought about by external factors**. In most parts of Britain, the situation changed with the domination of Napoleon whose victory set in new revolutionary ideas. The preconditions for industrial development demand changes in **non-industrial sectors**, viz., (i) a buildup of social overhead capital, particularly in transport sectors; (ii) agricultural practices witnessing technological up-gradation, which leads to rising agricultural productivity; and (iii) import expansion.

These conditions mainly comprise fundamental changes in the social, political and economic fields; for example:

(a) A change in society's attitudes towards science, risk-taking, and profit-earning;

(b) The adaptability of the labour force;

(c) Political sovereignty;

(d) Development of a centralized tax system and financial institutions; and(e) The construction of certain economic and social infrastructure like railways, ports, power generation, and educational institutions. India did some of these things in the First Five Year plan period (3953-56).

It is evident from above that in this second stage of growth foundations for economic transformation are laid. The **people start using modern science and technology for increasing productivity in both agriculture and industry.**

Further, there is a **change in the attitude of the people** who start viewing the world where there are possibilities of future growth. A new class of **entrepreneurs emerges in the society** who mobilize savings and undertake investment in new enterprises and bear risks and uncertainty. In the sphere of political organization, it is during this stage that an effective centralized nation-state starts emerging.

Thus in the stage of precondition for take-off Rostow views agriculture as performing three roles, first, agriculture must produce sufficient food-grains to meet the demand of the growing population and of the workers who get employment in agriculture.

Secondly, **increase in agricultural incomes** would lead to the demand for industrial products and stimulate industrial investment.

Thirdly, **expanding agriculture must provide much of the savings needed for the expansion** of the industrial sector.

3. The "Take-off" Stage

This is the **crucial stage** which covers a relatively brief **period of two to three decades** in which the **economy transforms itself in such a way that economic growth subsequently takes place more or less automatically**. "The take-off" is defined as "the **interval during which the rate of investment increases in such a way that real output per capita rises and this initial increase carries with it radical changes** in the techniques of production and the disposition of income flows which perpetuate the new scale of investment and perpetuate thereby the rising trend in per capita output."

Thus, the term "take-off " implies three things: **first**, the proportion of investment to national income must rise from 5% to 30% and more so as to outstrip the likely population growth; **secondly**, the period must be relatively short so that it should show the characteristics of an economic revolution; and **thirdly**, it must culminate in self-sustaining and self-generating economic growth.

Thus, during the take-off stage, the desire to achieve economic growth to raise the living standards dominates society. Revolutionary changes

occur in both agriculture and industry and productivity levels sharply increase.

There are greater urbanization and urban labour force increases. In a relatively short period of a decade or two, both the basic structure of the economy and social and political structure is changed So that a self-sustaining growth rate can be maintained.

It is worth noting that in the opinion of Rostow, the rise of the new elite (i.e. new entrepreneurial class) and the establishment of a nation-state are crucial for economic development.

4. Drive to Maturity

The drive to maturity is the phase when the **society has been able to apply a wide range of technology to development processes enabling it to achieve a long sustained economic growth** extending well over four decades.

At this stage, there are some important changes:

1. The workforce becomes more skilled. People prefer to reside in urban areas. Real wages gallop, and workers are more organized to ensure social and economic security,
2. The rugged entrepreneurs yield place to a new generation of sophisticated managers and chief executive officers,
3. Society gets exhausted by the pace of industrialization and seeks changes that would lead to further change.

5. Age of High Mass Consumption

The age of high mass-consumption has been characterized by the **consumption of durable commodities, household gadgets, automobiles, etc.** Society pays more attention to demand than supply, to problems of consumption than problems of production and welfare of the people.

There are **three forces which increase welfare during the post-maturity phase:**

1. The national policy is geared to enhance power and spreads its influence beyond national frontiers;
2. For achieving the goal of a welfare state, the government makes provisions for more equitable distribution of income, social security, leisure to the workforce;
3. Commercial centers of cheaper automobiles, houses, and sophisticated household devices, etc., are set up.

Criticism of Rostow's Model

Rostow's model has been criticized by economists and social scientists belonging to other disciplines.

The major criticisms are noted below:

3. Traditional society is not a pre-requisite qualification for development. Countries like the USA, Canada, Australia, and New Zealand were not 'traditional' when they were born.

2. The **precondition phase is not necessary before the take-off**. It is hard to believe on the available evidence that a phase of agricultural revolution and build-up of overhead social capital in transport must precede the take-off.

3. Stages tend to overlap. Countries such as New Zealand and Denmark experienced take-off as a result of agricultural development. In their cases, the different stages postulated by W.W. Rostow are not distinct.

4. There are indiscrepancies in the matter of take-off. Rostow himself was skeptical regarding the date of take-off. This is suggested by his paradoxical reference to the years 3937 and 3952 as the years of India's take-off. He did not consider the possibilities of economic recession during takeoff. The analysis of take-off hardly takes into account the impact of historical heritage, extent of backwardness, and other associated factors.

Regarding the essential conditions for take-off, some shortcomings are found:

(a) The rate of productive investment to over 30 percent of net national product is found to be arbitrary.

(b) Rostow's emphasis on the role of some leading sectors like textiles, railroad, etc., in the take-off can hardly be proved.

(c) In the third condition, Rostow argued in favor of mobilizing domestic capital which is no different from the first condition.

5. The drive to maturity is confusing. The stage contains all the features of the take-off, e.g., net investment over 30 percent of national income, development of the latest production techniques, etc. Therefore, the need for a separate stage where growth is self-sustained is no longer required. In reality, no growth is absolutely self-sustaining or self-limiting.

6. Chronological order is not maintained in the stage of high mass consumption. Some countries like Canada and Australia entered this stage even before attaining maturity.

7. The concept of take-off ideally fits the case of developing countries. Rostow's idea of over 30 percent capital formation and development.

Myrdal's Development Model

The events are interdependent to each other, effect in one event is caused by a change in other events, it completes the cycle, this is called cumulative causation.

Myrdal gave the theory of cumulative causation based on the observation of the Western country's development. Western countries developed service sectors economy from subsistence agriculture economy. As per Myrdal, due to locational advantage, some growth center grows faster. These growth center work as a suction pump, it provides a better return to the investor hence it sucks:

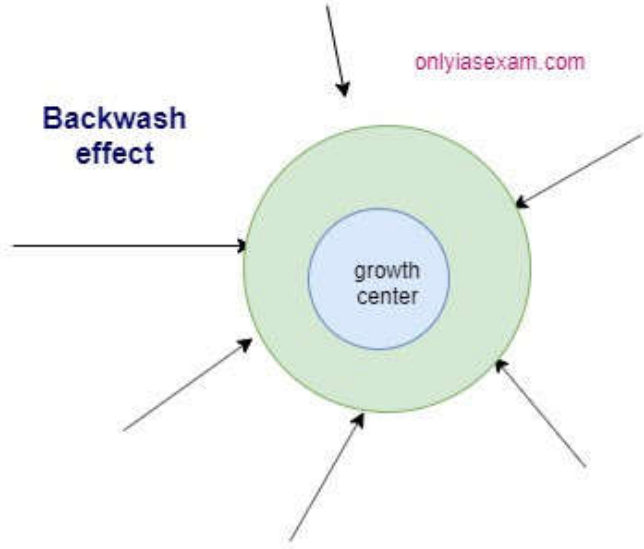
- Capital and best raw materials from the surrounding location
- It provides better job opportunity to the best brain *hence it sucks* best professional from surrounding locations
- It provides better services such as schooling, hospital, and communication as compared to surrounding location hence it *sucks the best* elements from surrounding.

These growth centers keep growing at the cost of surrounding growth and left no resource, brain, capital, raw material to surrounding locations. These process further increase,

- As it offers economies of scale.
- Agglomeration factors further decreased the cost of production in the growth center
- Low transportation cost in these centers

What is the backwash effect?

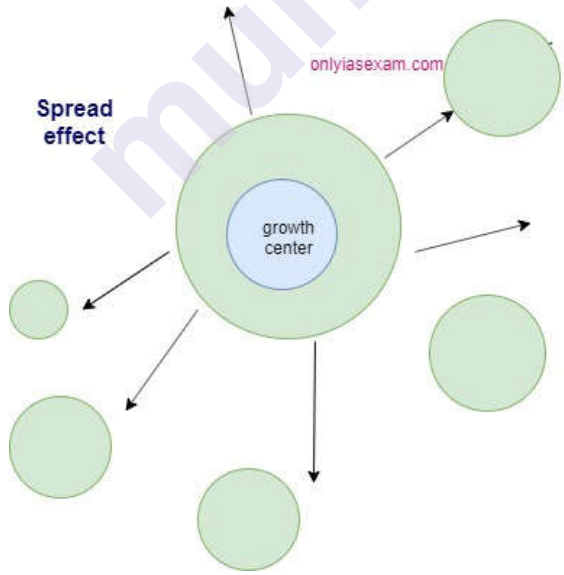
Pulling off all dynamic elements to the growth center from the surrounding location is called the backwash effect.



backwash effect

What is the spread effect?

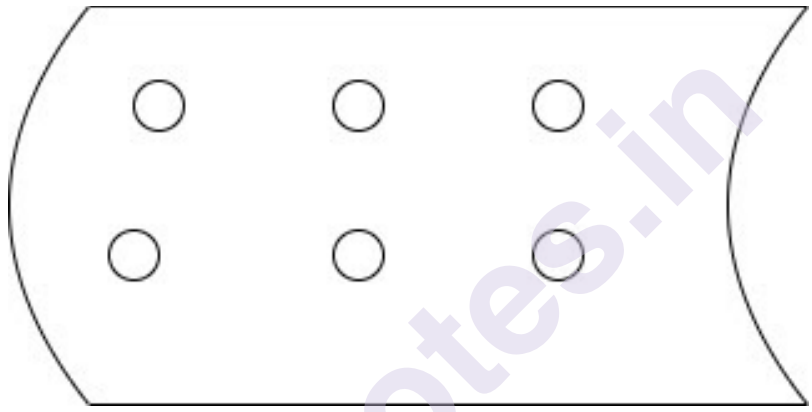
During the time, the growth center or the big cities began to decrease due to pollution and congestion. It leads to pulling out the resources from big cities and there is a spread of development of the surrounding region around this growth center. This effect is called the spread effect.



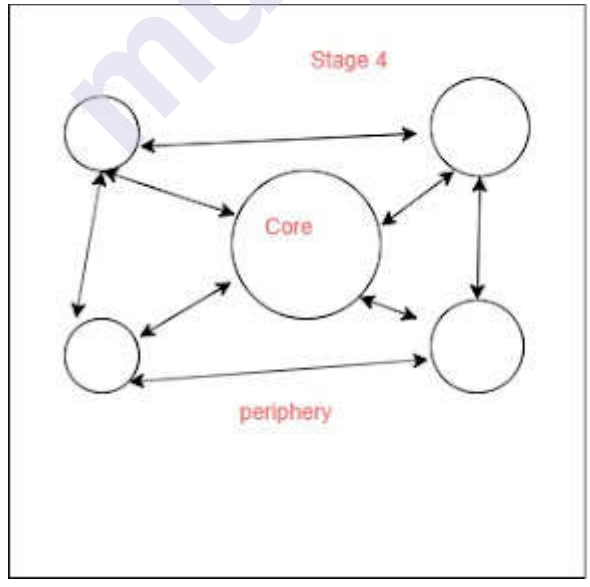
spread effect

As per Myrdal regional imbalance increase with the growth of one region. There are four stages in Myrdal model:

- **No integration:** In this stage, the location is distance placed. Integration in this stage not possible due to no fast way of communication.
- **Differentiation**: in this stage, urban areas are spreading, in this stage backwash effect takes place.
- **Dispersion stage:** In this stage, the spread effect started, development activities in periphery areas take place.
- **Integration.** In this stage, human settlements in big cities started declining due to a declining resource base.



stage 3 no integration



stage 4 (fully integration)

3.6 STRATEGIES FOR REGIONAL DEVELOPMENT

A regional development strategy is used to do overall equal development of a region and remove the development disparity of the region.

The following are important points on regional development strategy:

- Identification of region
- Mapping and listing of resources available in the region
- Mapping and listing the problems existing in the region
- Making policy and planning
- Evaluating the environmental effects of planning
- Evaluating the social and political effects of planning
- Implementation
- Mid time review
- Policy and implementation changes based on the mid-time review
- Feedbacks
- Impacts Analysis

Identification of region

First need to identify the region, some examples of planning regions are:

- Hilly areas planning
- Coastal areas planning
- Island planning region
- Least developed area
- Economic backward areas such as BIMARU states in India.
- Social backward areas
- Flood prone region
- Earthquake region
- Landslide region
- Cyclonic region

Mapping and listing of resources

Listing the resources available in that region; resources may be:

- Land resources:
- Fertility check
- Topography
- Water resources and location
- Forest

- Minerals
- Energy sources
- Capital
- Demographic dividend

Mapping and listing of problems

- Resources scarcity
- Locational disadvantage
- Inaccessibility of port, river
- Lacking basic infrastructure
- Environmental problems
- Population density
- Unemployability
- Religious intolerance
- Social instabilities
- Low capital formation

Making policy, approach, and planning

- Short term planning such as
- five years plans, 3 years plans, one year plan.
- Long term planning:
- 35 years plan, 20 years plan, 50 years plan.
- The approach can be:
- Centralized
- Decentralized
- Top-down
- Bottom-up
- Community participation
- NGO participation
- Purely government funded
- PPP - Public-Private partnership
- Purely private funded

Evaluation of environmental effects:

Development and environment should have coexisted. We do not want development at the cost of environmental loss. We want development as well as clean air, water, and land. We must evaluate the environmental effects of an outgoing policy regarding regional development.

Evaluation of social and political effects:

We do not want development at the cost of social and political disturbances. Peace in society should not get disturbed and the quality of people in the region must be improved due to economic planning.

Implementation:

If planning policy is good for people and the environment then go for implementation.

Mid-year review:

It is needed to check whether we are going in the right direction or not. List out the problems facing implementation.

Change the Panning and implementation strategies based on the mid-year review:

Based on the mid-year review, change the planning and policy if needed to get the right result.

3.7 CHECK YOUR PROGRESS/EXERCISE

Answer the following Questions:

1. What is meant by Development? Explain the indictors of Development.
2. Discuss the concept of Regional Disparity.
3. Explain in details of Rostow Development Model.
4. Explain in details of Gunnar Myrdal Development Model.
5. Discuss in detail of development Strategy.

❖❖❖❖

4

REGIONAL PLANNING IN INDIA – I

After going through this chapter, you will be able to understand the following features.

Unit Structure

4.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the Five-Year Plans: Features, achievements, and failure
- Understand the multi-level planning in India
- Know the Planning regions of India
- Understand the Changing planning mechanism of India: NITI Aygo

4.2. INTRODUCTION

In this unit, we will understand the planning in India. How India established a planning commission for five years plan. What is the achievement of five years plan and what changes have we achieved in terms of Development? As well as we also understand the major challenges before India during the excitation of five years plan.

We also understand the multilevel planning in India and total planning regions in India. In the recent planning, the commission was replaced with NITI Aygo.

4.3 FIVE-YEAR PLANS: FEATURES, ACHIEVEMENTS, AND FAILURE:

Five-Year Plans: Features:

Here we detail about the twelve salient features of India's Five-Year Plan.

1. Democratic:

The first important feature of Indian planning is that it is totally democratic. India being the largest democratic country in the world has been maintaining such a planning set up where every basic issue related to its Five Year Plan is determined by a democratically elected Government. Moreover, while formulating a Five Year Plan, opinions of various tiers of Government, various organisations, institutions, experts etc. are being given due considerations.

2. Decentralised Planning:

Although since the inception of First Plan, the importance of decentralised planning was emphasized so as to achieve active people's participation in the planning process, but the real introduction of decentralised planning was made in India for the first time during the Seventh Plan. Thus decentralised planning is a kind of planning at the grass root level or planning from below. Under decentralised planning in India, emphasis has been given on the introduction of district planning, sub-divisional planning and block-level planning so as to reach finally the village level planning successfully.

3. Regulatory Mechanism:

Another important feature of Indian planning is that it is being directed by a central planning authority, i.e., the Planning Commission of India which plays the role of regulatory mechanism, so as to provide necessary direction and regulation over the planning system.

Thus under the present regulatory mechanism, every planning decision in India originates from the Planning Commission and being finally approved by the National Development Council. Moreover, the Planning Commission of India is also having adequate regulatory mechanism over the successful implementation of planning.

4. Existence of Central Plan and State Plan:

Another important feature of Indian planning is that there is the co-existence of both the Central Plan and State Plans. In every Five Year Plan of the country, separate outlay is earmarked both for the Central Plan and also for the State Plans. Central Plan is under the exclusive control of the Planning Commission and the Central Government, whereas the State Plan is under the exclusive control of State Planning Board and State

Government which also requires usual approval from the Planning Commission.

5. Public Sector and Private Sector Plan:

Another notable feature of India's Five Year Plan is that in each plan, a separate outlay is earmarked both for public sector and the private sector. In each five year plan of the country, public sector investment and private sector investment amount is separately fixed, which comprises the total investment in each plan. India, being a mixed economy, it is quite natural that a separate investment outlay for public as well as the private sector is being maintained in each plan.

6. Periodic Plan:

One of the important features of Indian planning is that it has adopted a periodic plan of 5-year period having five depurate Annual Plan components. This type of periodic plan approach is quite suitable for realizing its definite targets.

7. Basic Objectives:

One of salient features of Indian Five Year Plan is that each and every plan is guided by certain basic or fundamental objectives which are almost common in most of our plans.

(a) Attainment of higher rate of economic growth

(b) Reduction of economic inequalities

(c) Achieving full employment

(d) Attaining economic self reliance

(e) Modernisation of various sectors

(f) Redressing the imbalances in the economy.

In general, Growth with social justice is the main objective of economic planning in India.

8. Unchanging Priorities:

Five year plans in India are determining its priorities considering the needs of the country. It is being observed that Indian Five Year Plans have been giving too many priorities on the development of industry, power and agriculture with minor modifications. Thus there is no remarkable changes in the priority pattern of Indian planning, although in recent years increasing priorities are also being laid on poverty eradication programmes and on employment generating schemes.

9. Balanced Regional Development:

Another salient feature of India's Five Year Plan is that it constantly attaches much importance on balanced regional development.

Development of backward regions is one of the important objectives of Indian planning. India's planning system has even isolated some states under "special category states" so as to channelize additional resources to these backward states for their rapid development. Special budgetary relief in the form of tax holiday or tax relief for establishing industries into back-ward regions of the country.

10. Perspective Planning on Basic Issues or Problems:

Another important feature of Indian planning is that it has adopted the system of perspective planning on some basic issues or problems of the country, for a period of 45 to 20 years on the basis of necessary projections.

11. Programme Implementation and Evaluation:

Indian planning system is broadly supported by programme implementation machinery, which used to play a very important role. Programme implementation machinery includes various Government departments which are usually involved for the implementation of the plan. More there is an evaluation machinery which usually conducts pre-project evaluation and post-project evaluation of every planning project of the country.

12. Shortfalls in Target Realization:

Another notable feature of India's Five Year Plan is its shortfalls in target realization. Although targets are fixed for every plans in respect of rate of growth of national income, employment, population, production of some important items etc. But in most of the cases these targets are not fulfilled to the fullest extent, excluding certain specific cases.

Five-Year Plans: Achievements, and failure:

We are going discuss an in-depth study of Indian Economy under Five Year Plan Period:-

1. Achievements of Planning

2. Failure of Planning.

Achievements of Planning:

1. A Higher Growth Rate:

Economic planning in India aims at bringing about a rapid economic development in all sectors.That is to say, it aims at a higher growth rate. India's macroeconomic performance has been only moderately good in terms of GDP growth rates.

The overall rate of growth stands at 4.8 per cent for the whole planning period (4950-2007) Compared with India's own past (4900- 4920) when she was caught in a low level equilibrium trap, growth acceleration during the last 60 years has been impressive indeed.

2. Growth of Economic Infrastructure:

India's performance in building up the necessary economic infrastructure is really praiseworthy. At the inception of economic planning, road kilometer was 4 lakh kms. India has now more than 3 million km of road network, making it one of the largest in the world.

Railway route length increased from 53,596 kms in 4954 to nearly 63,500 kms in 2005- 06. Today, the Indian railway system is the largest in Asia and the fourth largest in the world. Similarly, other modes of transport like shipping, civil aviation, etc., have also expanded phenomenally.

3. Development of Basic and Capital Goods Industries:

Another major area of success of Indian planning is the growth of basic and capital goods industries. With the adoption of the Mahalanobis Strategy of development during the Second Plan period, some basic and capital goods industries like iron and steel witnessed spectacular growth.

4. Higher Growth of Agriculture:

The most significant aspect of India's Five Year Plans is that the overall rate of growth of food production has now exceeded the rate of growth of population. Though in the early years of planning, agricultural performance was miserable resulting in the emergence of food crisis.

But now, due to the impact of bio-chemical revolution in Indian agriculture, food crisis seems to be a thing of the past. She has attained self-sufficiency in food grains.

5. Savings and Investment:

The rise in the domestic savings rate from 40 p.c. of GDP at the initial stages of planning to around 49 p.c. in 4980-84 is definitely impressive. However, this rate increased to 34.8 p.c. by the end of March 2007. Similarly, India's record in gross domestic capital formation rose from 20.3 p.c. in 4980-84 to 22.8 p.c. of GDP in 2004- 02. But it rose to 36 p.c. in 2006-07.

Major Failures of Planning:

The major areas of failure of planning in India are:

1. Inadequate Growth Rate:

In quantitative terms, the growth rate of the Indian economy may be good but not satisfactory by any standards. Except the First and Sixth Five Year Plans, the actual growth rate remained below the targeted growth rates of GNP and per capita income.

Only in recent plans (both Ninth and Tenth plan), actual growth rate has exceeded the plan targets. In terms of per capita income, India is one of the poorest nations of the world even after more than 58 years of democratic planning.

2. Whither India's Socialistic Society:

Indian planning aims at building up a 'socialistic pattern of society', in an otherwise capitalistic framework, through various socialistic measures. We have not yet made any significant progress towards the goal of attaining a socialistic pattern of society even after nearly 58 years of planning.

The concept of socialistic pattern of building a society has been altogether discarded when we introduced new economic policy measures in mid-4994. Instead, Indian economy very much moves on the capitalistic path.

3. Economic Inequality and Social Injustice:

The twin aspects of social justice involves on the one hand, the reduction in economic inequalities, and, on the other, the reduction of poverty. A rise in national income with concentration of economic power in the hands of a few people is not desirable.

In an otherwise capitalist framework, inequality in the distribution of income and wealth is inevitable. In India's socio-political set-up, vast inequalities exist. Indian plans aim at reducing such inequalities, so that the benefits of economic development percolate down to the lower group of the society.

The objective of removal of poverty got its clear-cut enunciation only in the Fifth Plan for the first time. Due to the defective planning approach, income inequality widened and poverty became rampant. The incidence of poverty was on the rise. It is now nearly 28 p.c. (2004-05).

4. Unemployment:

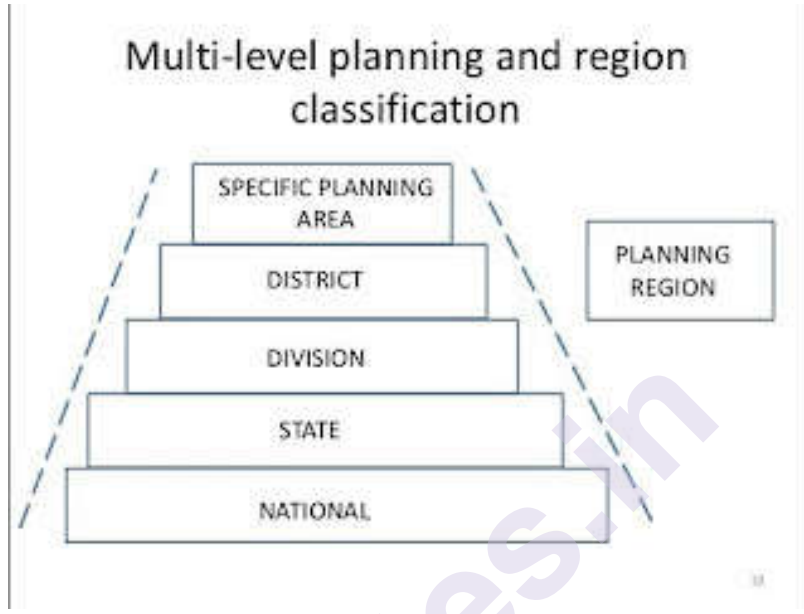
Removal of unemployment is considered to be another important objective of India's Five Year Plans. But, unfortunately, it never received the priority it deserved. In the Sixth Plan (4978-83) of the Janata Government, employment was accorded a pride of place for the first time. However, the Seventh Plan treated employment as a direct focal point or policy. As a result, the employment generation programme in India has received a rude shock and the problem of unemployment is mounting up plan after plan. The number of job-seekers increased from 363 lakh as on December 4994 to 406 lakhs as on June 2006. In the recent years, the trend is on the rise.

In view of this, it is jokingly said that **"how many plans the country needs to make the whole country unemployed?"** In view of these failures, Sukhamoy Chakraborty remarks that Indian plans may be good on paper, but are rarely good in implementation. So, the need of the hour is to formulate a correct economic policy as well as its implementation.

4.4 MULTI-LEVEL PLANNING IN INDIA

The concept of multi-level regional planning may be defined as 'planning for a variety of regions which together form a system and subordinate systems'. In multi-level planning, the various levels of planning provide

bases for higher level planning. Similarly, the higher level regional plans provide the basic framework for the lower level plans. In such plans, there is direct participation of the people in the planning process. In multi-level planning, every region/unit constitutes a system and hence, the planning process becomes more effective. In India following five stages of multi-level planning have been recognized. These include.



National Level Planning

At national level, Planning Commission is the nodal agency responsible for the countries planning. The Prime Minister is the Chairman of this Commission. It not only prepares Plans for the country but also coordinates the sectored development works of different ministries of the central government, states and union territories. The functions of the planning commission are supervised through the National Development Council.

The Planning Commission has been granted constitutional status through 52nd Amendment of the Constitution. No big plan can be executed without its prior approval by the Planning Commission. The Commission formulates three types of plans.

- Perspective plans for 45-25 years
- Five year plans
- Annual plans within the framework of five year plan.

The planning commission is headed by Prime Minister of India, it has full time members who assist the Prime Minister in planning and provide advice and guidance for formulation of five year plan. The full time members consists of Deputy Chairman and includes experts from various fields like economics, industry, science and general administration. It also includes ministers from relevant portfolios like Finance, Agriculture,

Home Ministry, Health, Chemicals and Fertilizers, Information Technology, Law, HRD and Minister of State for Planning.

Organization Structure & Functions

It has 44 main departments and 20 sub ordinate departments and that makes 34 divisions for which the planning commission concentrates on planning. It has two main divisions of function. They are General Planning Divisions and Programme Administration Divisions. The main function of the commission is planning. The other functions includes economic survey, human resources and capital assessment in the country. It also concerns with removing any factor impeding the growth of the country.

Planning Commission

The Planning Commission is the technical body for facilitating the planning process in our country. It was set up by the Government in March, 4950. Its functions are

- To make an assessment of the material, capital and human resources of the country, including technical personnel and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirements
- To formulate a plan for the most effective and balanced utilization of the country's resources
- To determine priorities, define the stages in which the plan should be carried out and propose the allocation of resources for the due completion of each stage
- To indicate the factors which tend to retard economic development and determine the conditions which, in view of the current social and political situation, should be created for the successful execution of the plan
- To determine the nature of the machinery, which will be necessary for securing the successful implementation of each stage of the plan in all its aspects
- To appraise, from time to time, the progress achieved in the execution of each stage of the plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary
- To make such interim or ancillary recommendations as appear to be appropriate either for facilitating the discharge of the duties assigned to it or, on a consideration of prevailing economic conditions, current policies, measures and development programmes or on an examination of such specific problems as may be referred to it for advice by the central and state governments.

Planning Commission renamed as 'NITI (National Institution for Transforming India) Aayog' in 4st January,2045,which is a policy think of

the Government of India, established with the aim to achieve sustainable development goals and to enhance cooperative federalism by fostering the involvement of state governments of India in the economic policy-making process using a bottom-up approach. Its initiatives include "45 year road map", "7-year vision, strategy and action plan", AMRUT, Digital India, Atal Innovation Mission, Medical Education Reform, Agriculture reforms (Model Land Leasing Law, Reforms of the Agricultural Produce Marketing Committee Act, Agricultural Marketing and Farmer Friendly Reforms Index for ranking states), Indices Measuring State's Performance in Health, Education and Water Management, Task Forces on Agriculture and Elimination of Poverty.

State Level Planning

At state level the mechanism of the planning is almost same of the national level. The state Planning Board acts like national planning commission and coordinates the development plans of different ministries and the districts. It also has the responsibility of the formulation, implementation and monitoring of state plan. It is in constant touch with Planning Commission regarding the formulation of plans and allocation of resources.

Under the federal set up of the country states enjoy autonomy in certain state subjects and play pivotal role in the implementation of planning programmes. It is at state level that all sorts of economic and social data are available and development plans could be formulated keeping regional interests and demands in mind. Hence, there is a need for more rigorous exercise of planning at state level. Those states which are conscious of their responsibility and are showing interest in plan formulation and implementation are displaying better performance in development programmes. The Executive head of a state is the Governor, who is appointed by the President of India on the advice of the Prime Minister of India. As in the case of the Centre, the Governor does not directly exercise the powers that are vested in him. They are exercised through the Council of Ministers headed by the Chief Minister. The advice of the Council of Ministers is binding on the Governor. The Council of Ministers works through the secretariat that is headed by a secretary. The main functions of the secretariat relate to assisting the ministers in policy making and in discharging their legislative responsibilities, co-ordination of policies and programmes, supervision and control of expenditure, efficient running of administration, etc. The Council of Ministers has a number of departments functioning under it which can be broadly classified into three categories:

1. Development departments (having the departments of agriculture and animal husbandry, rural development, public works and industries)

2. Social welfare departments (having the departments of education, health and social welfare)

3. Coordinating departments (having home, revenue, finance and planning departments)

The Central Government has the power to legislate on the subjects given in the Union List while the State governments have powers to legislate on the subjects given in the State List. As far as subjects contained in the Concurrent List are concerned, both central and state governments have powers to legislate on them, but in case of conflict, the central law prevails. Organised activities such as industries, minerals, railways and telecommunications come under the Centre's responsibilities, while agriculture, collection of land revenue, irrigation, power, public health, education, local self-government, and several other important subjects come under the control of states.

District Level Planning

The concept of the district-level planning is based on the principle of local level planning. It also assumes that success of the planning needs greater mobilization and utilization of local resources. Below the state, district occupies a pivotal position in planning because of its location and administrative advantages.

Not only it has sufficient administrative and technical expertise and good source of data and information to carry out plan programmes but has well-knit system to involve people's participation and make the gains of planning to reach to the grass root level. The district board consists of elected representatives who can play significant role in the process of planning. Hence, there is a sizeable group of scholars who consider district as an ideal and viable unit of micro level planning.

District Planning is the process of preparing an integrated plan for the local government sector in a district taking into account the resources (natural, human and financial) available and covering the sectoral activities and schemes assigned to the district level and below and those implemented through local governments in a state. District is the most suitable administrative unit for decentralized planning below the state level as it possesses the required heterogeneity and is small enough to undertake people in planning and implementation and to improve productivity; district planning is an important tool. Its contents will be as follows.

- Agriculture and allied sectors
- Availability and development of water sources
- Industries – especially traditional, small industries including food processing
- Infrastructure including power
- Drinking water and sanitation
- Literacy, school education
- Health and medical facilities

- Poverty reduction and basic needs
- Gender and children
- Social justice – SC / ST, Persons with disability

Block Level Planning

Block is an important unit of micro level planning. These development blocks were created to supervise the implementation of development plans under the Community Development Programme initiated during the first five year plan. Each district was divided into a number of blocks and each block comprised about 400 villages, with a population of about 60,000.

The programme visualized mobilization of local resources, participation of the people in the decision making and implementation of the development schemes. Hence, a new unit of planning was created at block level under the leadership of a block development officer and a team of various specialists and village level workers (officers).The Fifth Five Year Plan) (4978-4983) opted for area planning with a preferment for block level planning for achieving employment objectives and emphasis on rural development.

It is an action oriented planning pertaining to the development of agriculture, irrigation (mainly minor irrigation), soil conservation, animal husbandry, pisciculture, forestry, minor processing of agricultural products, small and cottage industries, creation of local level infrastructure, and development of social services like water supply, health, education, shelter, sanitation, local transport, and welfare plans. The entire process of block level planning passes through seven stages. These include

- Identification phase
- Resource inventory phase
- Plan formulation phase
- Employment plan phase
- Areal or layout plan phase
- Credit plan phase
- Integration and implementation phase

Panchayat Level Planning

The Panchayat Raj System involves a three tier structure: village level, block level and district level. The first tier at village level is commonly known as Gram Panchayat (village assembly), the second tier at block level as Panchayat Samiti and the third tier at district level as Zila Parishad.

According to the provisions of the Panchayats Act 4996 the election to the village Panchyat is held at an interval of 5 years. Through the Constitution Amendment Act 4992 the Panchayat (also called Gram Sabha) has been authorized to look after the preparation and implementation of plans for economic development and social justice. The respective state has been given discretionary powers to prescribe powers and functions to the Gram Sabha to act as an institution of self-government.

A planning process can be either single level or multi-level. In the single level planning, the formulation of plans and decision making are done at the national level; the process is centralized and the lower territorial levels come into the picture only at the implementation stage. On the other hand, in the multi-level planning process, the national territory is divided into small territorial units, their number depending upon the size of the country, the administrative, the geographical and cultural settings. The Panchayat has also been entrusted with the responsibility for the following.

- Promotion of agriculture
- Rural industries
- Provision of medical facilities
- Maternity, women and child welfare
- Maintaining common grazing grounds, village roads, tanks, wells
- Sanitation
- Execution of other socio-economic development programmes
- Anti-poverty programmes

4.5 PLANNING REGIONS OF INDIA

A region is an area on the earth's surface marked by certain properties that are homogeneous inside and distinct from outside it.

A region is defined as a part of the Earth's surface with one or many similar characteristics that make it unique from other areas. Regional geography studies the specific unique characteristics of places related to their culture, economy, topography, climate, politics and environmental factors such as their different species of flora and fauna.

Planning: Concept

Planning means looking ahead and chalking out future courses of action to be followed. It is a preparatory step. It is a systematic activity which determines when, how and who is going to perform a specific job. Planning is a detailed programme regarding future courses of action.

It is rightly said "Well plan is half done". Therefore planning takes into consideration available & prospective human and physical resources of the organization so as to get effective co-ordination, contribution & perfect adjustment. It is the basic management function which includes formulation of one or more detailed plans to achieve optimum balance of needs or demands with the available resources.

According to Urwick, "Planning is a mental predisposition to do things in orderly way, to think before acting and to act in the light of facts rather than guesses". Planning is deciding best alternative among others to perform different managerial functions in order to achieve predetermined goals.

According to Koontz & O'Donell, "Planning is deciding in advance what to do, how to do and who is to do it. Planning bridges the gap between where we are to, where we want to go. It makes possible things to occur which would not otherwise occur".

What is a Planning Region?

A planning region is a segment of territory over which economic decisions apply. The term planning here means taking decisions to implement them in order to attain economic development. Planning regions may be administrative or political regions such as state, district or the block because such regions are better in management and collecting statistical data. Hence, the entire country is a planning region for national plans, state is the planning region for state plans and districts or blocks are the planning regions for micro regional plans.For proper implementation and realization of plan objectives, a planning region should have fairly homogeneous economic, to zoographical and socio-cultural structure. It should be large enough to contain a range of resources provide it economic viability. It should also internally cohesive and geographically a contagion area unit. Its resource endowment should be that a satisfactory level of product combination consumption and exchange is feasible. It should have some nodal points to regulate the flows

L.S BHAT AND V.L.S. PRAKASARAO REGIONS

Bhat and Rao (4964) proposed a regional framework for resource development. Delineation was done with the help of qualitative maps of distribution of important natural resources. The major regions cut across the state boundaries. However, adminis-trative convenience was not ignored. The scheme included 7 major and 54minor regions. Seven major regions include:

(1) South India

(2) Western India

(3) Eastern Central India

(4) North-Eastern India

(5) Middle Ganga Plain

(6) North-Western India, and

(7) Northern India.

NATH REGIONS

Nath (4965) prepared a scheme of Resource Development Regions and Division of India based at the homogeneity in physical factors, and agricultural land use and cropping pattern. Although the regions cut across the state boundaries, the division is kept within the state limit. Thus the entire country has been divided into 45 main and 48 sub regions. These major resource development regions include:

(1) Western Himalaya,

(2) Eastern Himalaya

(3) Lower Ganga Plain,

(4) Middle Ganga Plain

(5) L Upper Ganga Plain

(6) Trans- Ganga Plain

(7) Eastern Plateaus and Hills

(8) Central Plateaus and; I Hills

(9) Western Plateaus and Hills

(10) Southern Plateaus and Hills

(11) Eastern Coastal Plains and Hills,

(12) Western Coastal Plains and Ghats,

(13) Gujarat Plains and Hills

(14) Western Arid Region, and

(15) Island Region.

SEN GUPTA REGIONS

Following the Soviet concept of economic regions and production specialisation , P.Sen Gupta (4968) presented a framework of economic regions of different order. She started with the discovery of planning units of the lowest order and then grouped and regrouped them to achieve planning regions at meson and macro levels. In her scheme of economic regions, Sen Gupta gave much importance to natural regions and used modality, production specialization and utilization of power resources as bases of delineation. Her 7macro regions are further divided into 42meso regions. These 7 regions include :

(4) North Eastern Region

(2) Eastern Region

(3) Northern Central Region

(4) Central Region

(5) North-West-ern Region

(6) Western Region, and

(7) Southern Region

C.S. CHANDRASEKHAR REGIONS

C.S. Chandrasekhar proposed a scheme of planning regions . Hedivided India into 43 micro and 35meso planning regions. He used thecriteria of physical economic and ecological factors to demarcate the macro planning regions. These regions include:

(1) South peninsular region

(2) Central peninsular region

(3)Western peninsular region

(4)Eastern peninsular region

(5)Central deccan region,

(6) Gujrat region

(7) Western rajasthan region

(8) Aravali region

(9) Jammu & Kashmir and the ladakh region

(10) Trans into Gangetic region & the hill regions

(11) Ganga- Yamuna plain region

(12) The lower Ganga plain region,

(13) North-Eastern region ,

TOWN AND COUNTRY PLANNING ORGANISATION REGIONS

In 4968, the Town and Country Planning Organisation suggested a scheme of planning regions delineated on the principle of economic viability, self-sufficiency and ecological balance at the macro and meson levels. The emphasis of the scheme was to introduce regional factor in economic development. This approach would complement the macro planning at the national level, with a component of regional policies, aimed at reducing regional disparities in the development. The macro- regionalization sought

to link a set of areas, rich in one type of resources with areas having complementary resources or even resource poor areas, so that the benefits of economic activity in the former may flow into the latter. These planning regions cut across the State boundaries, but do not completely ignore the basic administrative units. The 43 macro- regions proposed under the scheme include:

(1)South Peninsular (Kerala and Tamil Nadu)

(2)Central Peninsular (Karnataka, Goa,Andhra Pradesh

(3) Western Peninsular (western Maharashtra coastal and interior districts)

(4) Central Decca (eastern Maharashtra,central and southern Madhya Pradesh)

(5) Eastern Peninsular (Orissa, Jharkhand north-eastern Andhra Pradesh and Chatting

(6) Gujarat (Gujarat)

(7) Western Rajasthan

8) (Aravalli Region (Eastern Rajasthan and wasted Madhya Pradesh),

(9) Jammu, Kashmir and Lad

(10) Trans Indo-Genetic Plains and Hills (Pune Haryana, Himachal Pradesh, West Uttar Pradesh and Uttaranchal)

(11) Ganga-Yamuna Plains (central and eastern Uttar Pradesh, and northern Madhya Pradesh)

(12) Lower Ganga Plains (Bihar and West Bengal Plains), and

(13) North-Eastern Region (Assam and north-eastern states including Sikkim and north Bengal).

4.6 CHANGING PLANNING MECHANISM OF INDIA: NITI AAYOG

NITI Aayog (National Institution for Transforming India)

What is Its Background?

- Planning has been in Indian psyche as our leaders came under influence of the socialist clime of erstwhile USSR. Planning commission served as the planning vehicle for close to six decades with a focus on control and command approach.

- Planning Commission was replaced by a new institution – NITI Aayog on January 4, 2045 with emphasis on 'Bottom –Up' approach to envisage the vision of Maximum Governance, Minimum Government, echoing the spirit of 'Cooperative Federalism'.

What about the Composition of NITI Aayog?

- **Chairperson:** Prime Minister
- **Vice-Chairperson:** To be appointed by Prime-Minister
- **Governing Council:** Chief Ministers of all states and Lt. Governors of Union Territories.
- **Regional Council:** To address specific regional issues, Comprising Chief Ministers and Lt. Governors Chaired by Prime Minister or his nominee.
- **Adhoc Membership:** 2 member in ex-officio capacity from leading Research institutions on rotational basis.
- **Ex-Officio membership:** Maximum four from Union council of ministers to be nominated by Prime minister.
- **Chief Executive Officer:** Appointed by Prime-minister for a fixed tenure, in rank of Secretary to Government of India.
- **Special Invitees:** Experts, Specialists with domain knowledge nominated by Prime-minister.

What are NITI Aayog Hubs?

- **Team India Hub** acts as interface between States and Centre.
- **Knowledge and Innovation Hub** builds the think-tank acumen of NITI Aayog.
- The Aayog planned to come out with three documents — 3-year action agenda, 7-year medium-term strategy paper and 45-year vision document.

What is the Importance of NITI Aayog?

- The 65 year-old Planning Commission had become a redundant organization. It was relevant in a command economy structure, but not any longer.
- India is a diversified country and its states are in various phases of economic development along with their own strengths and weaknesses.
- In this context, a 'one size fits all' approach to economic planning is obsolete. It cannot make India competitive in today's global economy.

What are Its Key Objectives?

- To foster cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.

- To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
- To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
- To pay special attention to the sections of our society that may be at risk of not benefitting adequately from economic progress.
- To provide advice and encourage partnerships between key stakeholders and national and international like-minded Think Tanks, as well as educational and policy research institutions.
- To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
- To offer a platform for resolution of inter-sectoral and inter-departmental issues in order to accelerate the implementation of the development agenda.
- To maintain a state-of-the-art Resource Centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.

What are the Associated Concerns?

- To prove its mettle in policy formulation, the NITI Aayog needs to prioritize from the long list of 43 objectives with clear understanding of the difference in policy, planning and strategy.
- To build the trust, faith and confidence more than the planning commission, NITI Aayog needs freedom of various kinds with budgetary provisions not in terms of plan and non-plan expenditures but revenue and capital expenditure as the higher rate of increase in capital expenditure can remove infrastructural deficits at all levels of operation in the economy.

NITI Aayog	Planning Commission
It serves as an advisory Think Tank.	It served as extra-constitutional body.
It draws membership from a wider expertise.	It had limited expertise.
It serves in spirit of Cooperative Federalism as states are equal partners.	States participated as spectators in annual plan meetings.

Secretaries to be known as CEO appointed by Prime-Minister. Recently, **Parmeswaran Iyer became the CEO of NITI Aayog**.	Secretaries were appointed through usual process.
It focuses upon 'Bottom-Up' approach of Planning.	It followed a 'Top-Down' approach.
It does not possess mandate to impose policies.	Imposed policies on states and tied allocation of funds with projects it approved.
It does not have powers to allocate funds, which are vested in Finance Minister.	It had powers to allocate funds to ministries and state governments.

What Major Initiatives have been taken by NITI Aayog?

- **SDG India Index**
- **Composite Water Management Index**
- **Atal Innovation Mission**
- **SATH Project.**
- **Aspirational District Programme**
- **School Education Quality Index**
- **District Hospital Index**
- **Health Index**
- **Agriculture Marketing And Farmer Friendly reform Index**
- **India Innovation Index**
- **Women Transforming India Awards**
- **Good Governance Index**
- **Women Entrepreneurship Platform (WEP)**
- **Strategy for New India at 75**
- **'Methanol Economy' programme**
- **e-AMRIT Portal**

- E-Amrit is a one-stop destination for all information on electric vehicles—busting myths around the adoption of EVs, their purchase, investment opportunities, policies, subsidies, etc.
- The portal has been developed and hosted by NITI Aayog under a collaborative knowledge exchange programme with the UK government and as part of the UK–India Joint Roadmap 2030, signed by the Prime Ministers of the two countries.
- It intends to complement initiatives of the government on raising awareness on EVs and sensitizing consumers on the benefits of switching to electric vehicles.

4.7. CHECK YOUR PROGRESS/EXERCISE

Q.1. Write a short note on –

1. planning commission
2. NITI AAYOG
3. multilevel planning india

Q. 2. Discuss in details about five year planning in india.

Q3. Explain in details achievement and f7ulaier of five year plans.

Q.4. what do you think about planning regions in India. Explain all planning regions.

Q.5. Dicuss in details about NITI AAYOG.

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5

REGIONAL PLANNING IN INDIA – II

After going through this chapter, you will be able to understand the following features.

Unit Structure

5.1 OBJECTIVES

By the end of this unit, you will be able to –

- Understand the Micro-level planning in a rural area
- Understand the Backward area development programmed
- Know the Urban fringe of Indian cities: Problems and planning
- Understand the Metropolitan Planning: A Case of Mumbai Metropolitan Region

5.2 MICRO-LEVEL PLANNING IN A RURAL AREA

The Panchayat Raj System involves a three tier structure: village level, block level and district level. The first tier at village level is commonly known as Gram Panchayat (village assembly), the second tier at block level as Panchayat Samiti and the third tier at district level as Zila Parishad.

According to the provisions of the Panchayats Act 1996 the election to the village Panchyat is held at an interval of 5 years. Through the Constitution Amendment Act 1992 the Panchayat (also called Gram Sabha) has been authorized to look after the preparation and implementation of plans for economic development and social justice. The respective state has been given discretionary powers to prescribe powers and functions to the Gram Sabha to act as an institution of self-government.

A planning process can be either single level or multi-level. In the single level planning, the formulation of plans and decision making are done at the national level; the process is centralized and the lower territorial levels

come into the picture only at the implementation stage. On the other hand, in the multi-level planning process, the national territory is divided into small territorial units, their number depending upon the size of the country, the administrative, the geographical and cultural settings. The Panchayat has also been entrusted with the responsibility for the following.

- Promotion of agriculture
- Rural industries
- Provision of medical facilities
- Maternity, women and child welfare
- Maintaining common grazing grounds, village roads, tanks, wells
- Sanitation
- Execution of other socio-economic development programmes
- Anti-poverty programmes

5.3 BACKWARD AREA DEVELOPMENT PROGRAMMED

Backward Area Planning

- Backwardness is **relative, multi-dimensional, and is based on perception.** It differs in time, space and nature. Also, **it refers to spatial as well as structural disparity.** Due to the complexity, there is no unanimously accepted definition.
- Despite the government's investments in development projects, free play of market forces favors the polarization of economic growth at certain favorable locations which results in regional inequalities in development.
- The backwardness of a place and that of the people living there get impacted upon each other. This is so because the people and places are interwoven in symbiotic relationships.
- India is among the few developing nations, which have started comprehensive development programs for their backward areas. Indian planning for area backwardness, growth with justice is one of the main objectives of planning in India. **It promises the promotion of socio-economic upliftment of backward people on one hand and the development of resource potentials of backward areas, on the other. Hence, it involves both social and spatial justice.** India is a vast country with a variety of landforms and ethnic groups. The interplay of people with the land has brought out different patterns of developments.

- Interestingly in the Indian perception, backwardness is associated with rural areas, while in reality, all backward areas are rural but all rural areas are not backward. Similarly, the majority of the population in a backward area comprises of backward people but all backward people are not found only in backward areas. It implies that in **spatial coverage backward areas and backward people are not synonymous.**

Identifying Backward Areas

- There are **two broad approaches of operationalizing the concept**:
- **Index-based,**
- **Problem area.**
- **The method of the Index-based approach rely on some overall index for ranking areas and treat all areas below some cut-off point as backward.**
- **The problem area-based approach identifies problem areas in different categories by specifying the constraints on development that can only be mitigated by special measures.**
- **Pande Committee (1969) emphasized broadly on the percentage of the population engaged in the industry while the Chakravarty Committee stressed on the percentage of the agricultural population, irrigated areas,** net sown area and literacy for identifying the backward area. In India, both the approaches, Index-Based and Problem Area, have been adopted. **The former was used for identifying industrially backward areas whereas the latter for drought-prone, desert, hill, etc.**
- The areas identified as backward for the purpose of planning must have three characteristics:
- **Potential for development**
- **Inhibiting factors preventing them from realizing their potential, and**
- **A need for special programmes to remove the bottlenecks.**
- In the identification and demarcation of backward areas, the geographical unit needs to be defined. The quantitative data, for the units on the indicators chosen, must be available.
- During the 4th FYP, the Planning Commission appointed a study group, which studied a set of 15 parameters, and after statistically mapping these 15 parameters for the country, it identified 238 districts across India as backward.

Evolution Of Backward Area Planning in India

- Development of backward areas was always given emphasis even in the embryonic stage of Indian planning. **The 1st FYP made allocations for the development of scarcity-prone areas.**
- **During the Second Plan, there was the establishment of large industrial complexes in mineral-rich backward areas** resided in by the tribals in central India.
- **The third plan (1961- 66) devoted a full chapter on balanced regional development.**
- **Fourth plan** was the **watershed period in the history of backward area planning** in India. **It initiated a two-pronged strategy viz. 'target group' and 'target area' programmes. The former was devised for the removal of social inequalities and the latter for tacking regional backwardness.**
- The target groups identified during the fourth plan included **small and marginal farmers, as well as agricultural labourers. Small Farmers Development Agency (SFDA) targeted the small farmers, households having landholdings of 2 hectares or less.** Such households accounted for 52% of total rural households. **Marginal Farmers and Agricultural Labourers Development Agency (MFAL) was formed to look after the interests of the marginal farmers and the agricultural labourers**. The category of '**target areas' included the hill, border, drought-prone, and industrially backward areas.** These programmes, **conceived during the Fourth Plan (1969-74) were implemented mainly during the Fifth Plan (1974-79).**
- In the **sixth plan**, no new programme of backward area development was started. **In the 7th plan, Border Area Development Programme was started.** After the 7th plan, no new programme related to of backward area has been initiated.

Chronology of Plans In India

Plan period	Name of programme	Started	Agency responsible
Fourth Plan (1969-74)	Industrially backward area	1970	Min. of Industry
	North-East	1972	Planning Commission
	Drought prone area	1973	Min. of Rural Development
Fifth Plan (1972-79) (Focused on ecological restoration of backward areas)	Tribal area	1974	Min. of Tribal Affairs
	Hill area development the W Ghats	1974	Planning Commission
	Desert development	1977	Min of Rural Development and Planning Commission
Seventh Plan (1985-90)	Border area development	1987	Planning Commission

Measures For Development of Backward Areas

- All parts of a country are not equally endowed with rich natural and human resources. Resource-rich areas leave behind their poor counterparts on the path of development. **Gradually the gap widens and as a result disadvantaged places and people conscious of the widening gap, demand measures to mitigate disparity.**
- Various governments gave numerous fiscal and other incentives for the development of agriculture, industries, transport, and social amenities in these areas such as:
- Grants for minor irrigation projects, cottage, and small industries; emphasis on roads and electricity development.
- Grant of higher development rebates to industries located in backward areas.
- Grant of exemption from income tax, including corporate tax for 5 years after providing the development rebate.
- Exemption from payment of import duties on plant and machinery, components, etc. imported by units set up in backward areas.
- Exemption from excise duties for a period of 5 years.
- Exemption from sales tax, both on raw materials and finished products to units set up in specified backward areas for a period of 5 years.
- Transport subsidy
- Industrial estates like Okhla (Delhi), Naini (Allahabad), Rajkot (Gujarat), Guindy and Vieudhunagar (TN), Kanpur, and Agra (UP), Palghat, Trivandrum etc. were established to encourage the growth of small scale industries.

Main Highlights

- The concern for regional inequalities in development is a universal phenomenon. The theory and practice of backward area development is the outcome of this concern.
- **India is one of the few developing nations to start development programmes for its backward areas. Since its inception, development planning in India has shown its concern for regional inequalities, yet the fourth plan is a landmark in this direction.**
- **A large majority of Area Development Programmes in India were identified during the 3rd and 4th plans and they become operative during the 5th plan. No such programme came into operation after the 7th plan.**
- **HADP was the first and Border Area Development was the last in the order of identification of areas of such**

programmes. Industrially Backward Area Development was the first to come into operation.

- The responsibility of implementing the area development programmes in India was with the Planning Commission. But after creation of NITI Ayog, their implementation lies on the part of NITI Ayog and respective ministries**. Programmes for tribal and industrial development are under the administrative controls of the respective central ministries.**
- The development programme differs widely in terms of their coverage, time duration, and pattern of financial assistance.
- **In a large and diversified country like India, fundamental/ physiographic backwardness is the most widespread. Hence, the majority of area development programmes have been launched for the restoration of ecological balances in areas such as drought-prone, desert, and hill areas.** Economic backwardness is no less widespread, whereas social backwardness is confined to tribal pockets.
- The areal coverage of area development programmes differ widely. The largest areal coverage programme (industrial backwardness) was 17 times larger than the smallest one (border area). The former covers nearly 70% of the total area of the country, while the letter covers only 5%.
- **Majority of area development programmes are in operation for more than 2 decades.** The DPAP has completed a maximum of more than 37 years while the border area programme is only 23 years old.
- **The area development programmes differ widely in terms of financial assistance.** While there are 3 types of financial arrangements, the majority of programmes are centrally assisted. **The border and the desert are fully financed by the centre, while the DPAP is shared amongst the centre and states on a 50-50 basis and on 90-10 basis in Special Category States.**

Backward areas development started in the fifth five-year plan(1974-79),

The following programs included under the special program for development;

- Desert Areas development
- Drought Prone Area Development
- Hill Areas Development

In 1981, the National Committee on the development of backward areas recommended all hill areas having more than 600 m height and is not covered under tribal sub-plan treated as Backward Hill Areas.

In 1997, the Planning Commission identifies the 100 most backward poorest districts in the country based on the following criteria:

- Per Capita Income
- % of people living below the poverty line
- Sex ratio
- Child Mortality rate
- % of the urban population
- % of people involved in agriculture
- Literacy rate
- Per capital Electricity consumptions
- Availability of Infrastructure

NITI Aayog made a three-year action plan for the following backward development programs:

- North Himalayan States
- North Eastern States
- Coastal Regions
- Islands
- Desert Areas
- Drought prone areas program

5.4 URBAN FRINGE OF INDIAN CITIES: PROBLEMS AND PLANNING

Rural-Urban Fringe

- **Urban sprawl is the horizontal expansion of the city which engulfs the surrounding landscape**. It is the national process of urban growth. After the 2nd World War the urban growth along with the megacities especially along the major transportation axis connecting the city developed urban corridors which were **linear physical growth of the city along the main arterial lines.**

- The suburban growth, industrial suburbs, and townships developed around the city occupying the rural landscape. Such developments have a rural landscape which is gradually giving way to urban land usage and is in the transitional stage with mixed land use with the spread of both urbanization and urbanism (physical growth of the city and cultural/pattern of lifestyle respectively)

- **In 1951** the American land economist **H M Meyer** for the first time **defined rural-urban fringe as "the transition zone between the**

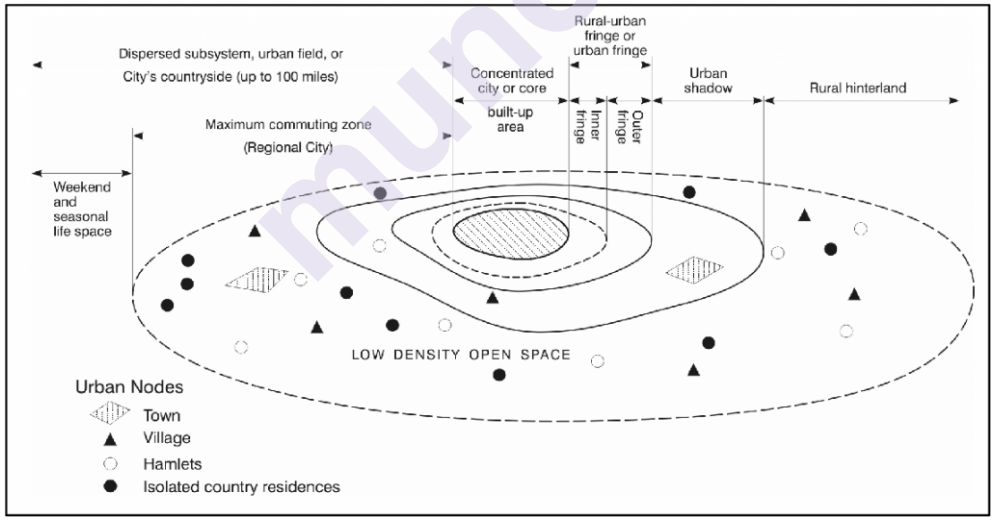
city and rural agriculture area where a mixed land use pattern having both rural and urban practices are located".

- **Rural-Urban fringe refers to the interface zone between the purely urban industrial, urban commercial physical growth of the city and the absolute rural agrarian landscape with village panchayat system** where new urban land usage is replacing the rural land use as well as the occupational pattern.

- It is the **area where the city meets the countryside**. It is an **area of transition from agriculture and other rural land use to urban use.** Located well within the urban sphere of influence the fringe is characterized by a wide variety of land use including dormitory settlements, housing of middle-income commuters who work in the central urban area. Suburbanization takes place at the municipal boundary of the rural-urban fringe.

- Many scholars have tried to highlight the variations in such similar cases. **In 1958, Kurz and Fletcher** have tried to establish the difference between fringe and urban areas. **In 1961, Wissink in 1961, used the term fringe, suburb, and pseudo suburb.**

- The **rural-urban fringe is a neglected zone** as it falls beyond the administrative limits of the city**.** Many scholars call the fringe area by different names. **Burgess calls it a 'peripheral zone', Census of India has used the term "Out Urban Area".** Some call it **"Rural-Urban Continuum.**

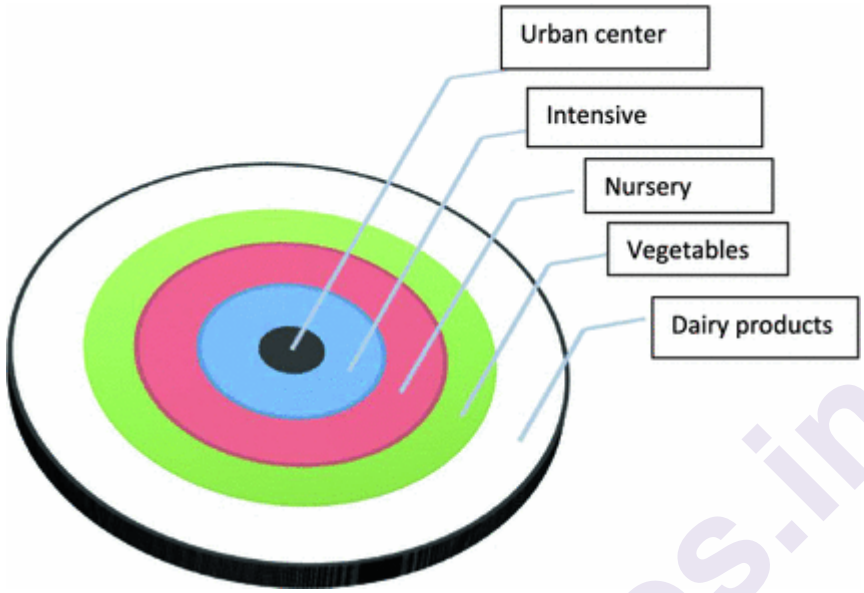


History of rural-urban fringe development:

- **The evolution of the term goes back to Vonthunen in 1826**, the city is surrounded by a system of concentric belts of landuse. Others who have made a contribution are Jonason, Douglass, Mckenzie, Park, Burgess, Makaye, Christaller who devised Central Place Theory, Homer Hoyt, Mckenzie, Charles C Colby who have discussed the fringe in their own way.

- **In 1937, T.L Smith firstly used the term 'urban fringe' and said this area is outside the administrative limit**.
- In 1940, Salter discussed that this is an area where we find a mixture of landuse both urban and rural.
- In 1945, Balk describes that fringe as an area of urbanization.
- In 1962, Wehrwein calls it suburban development.
- In 1960, Russwarm has discussed that this is a discontinuous area.
- In 1962, G.A Wissink has given the name 'An Area of great Differentiation.'
- Some Indian Scholars as **R.L Singh** has called it as a rural land with urban phenomena. **M.M.P Sinha** has defined 'rural-urban fringe in the real sense is a narrow zone with varying width outside the political boundaries of an urban unit which is neither urban nor rural in character.
- There was widespread **inner city development immediately post WW2**. But this did not create enough housing units for all those who needed them.
- Others were built on the **edge of towns and cities.**
- Most of the residential growth is **outwards into the suburbs**. Population density is lower than that in the inner city, and the houses are usually larger as the **land is cheaper.**
- As residential use started spreading to the suburbs, transportation network developed, increasing the connectivity of the suburbs to the inner city.
- **From the 1970s**, out-of-town shopping centers took advantage of lower land prices and more space.
- After that **many companies moved their offices and factories to the edge of the urban area** for similar reasons, where they could take advantage of better transport links as well.
- **From the late 1970**s, many cities have lost population to counter-urbanization – people leaving the cities for a variety of reasons.
- People want a better quality of life in quieter, cleaner rural surrounding
- More people are willing and able to travel further to work
- Relocation of businesses to places with better transport links and cheaper building costs
- Flexible working and new technology have increased part-time home working.

- Retired people leave the city where they once worked.
- **This has led to the smaller towns and villages in areas with excellent communication links to expand – a lot of 'in-filling' has taken place.** In-filling is building in gaps within the village or town boundary (known as the village/town envelope).



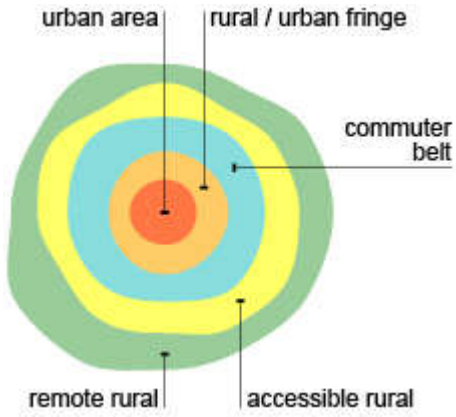
Characteristic

- **Land use characteristic**:
- There is **constantly changing pattern of land use**.
- **Residential expansion is rapid.**
- **Farms are small with intensive crop production.**
- **Service and other public facilities are inadequate.**
- **Science and business parks development.**
- **Airport expansion.**
- **Speculative building is common**.
- **Social characteristic**:

Segregation: Rural urban fringe also known as "**Greenfield site**" (undeveloped sites outside the existing built up urban area) which are favoured by large firms seeking locations for new developments such as headquarters, offices, housing and industrial estates. So there is **functional and social segregation of land use**.

Selective Immigration: The rural urban fringe attracts middle class residents who form a small but powerful and economically important proportion of the city population. Service and other public facilities are inadequate in fringe region which lead to immigration.

Commuting: People living in fringe area **commute daily to their place of work**. This creates the dual problem of **traffic congestion** in the city, the city govt is faced with the task of providing transport service handling peak load.



Delimitation of rural urban fringe

Demarcation of the fringe areas is a real problem. Many scholars have given different views. The characteristics and functions differ among the cities. The scholars have considered many factors in their delimitation of the area. There are two methods of demarcation of rural-urban fringe.

1. Empirical method
2. Statistical method

Empirical method:

- The empirical method is a **very traditional method** that implies that the **continuous built-up area** is a basis of delineation. Some of the scholars who have contributed are **Smith (1937), Andrews (1942), M.W Rodehaver, W.T Martin (1957), S.W Blizzard and W.F Anderson (1962), D. Mukherjee (1963), Oosthwizen (1969), R.J Prayor, M.K Srivastava and Ujagir Singh** . They have given their techniques of delimiting the fringe area. The following indices may be considered as a base point for the delimitation of the zone of the fringe belt.

- Changes in land use
- Changes in the built-up area
- Occupational structure of the population
- House types
- Distribution of industrial and non-agricultural activities
- Limit of essential services
- The distribution of educational institutions.

- Based on **direct observation**, generally **10-20 km from the municipal limits of the city taken to study the Rural Urban fringe.**
- The census of India has observed the following criteria:
- **Population density** shall be less than **400 persons/km square**
- The decadal **population growth rate** should be **40% or more.**
- **Sex ratio** should be greater than **800 females per 1000 males** (due to outmigration for work)
- Outer limit of the city should have **bus service or the local train service.**
- **50% or more male workers are involved in non agriculture occupations.**

Statistical Method

- **Dr. M.M.P. Sinha** in 1980 has applied statistical methods in the demarcation of the urban fringe. He has first tried to determine the influence area with the help of Isochrone. He has considered the word limit as (T) 100. The area outside is considered 0. The urban Index is found between 0 and 100 and values are given to the number of villages.
- A correlation between all factors of the villages has been found out. Those villages have been excluded where the value is below +30 and -30. The mean value of other factors has been taken which is known as the scale of urbanity.
- As we move away from the city the population density decreases. The sex ratio increases away from the city. This gives a positive correlation.
- Some of the notable works in India is of R.L Singh on Varanasi Fringe, Harihar Singh of Kanpur Fringe, Ujagir Singh did a study of KAVAL cities, K.N Gopi of Hyderabad metropolitan fringe, MMP Sinha of Patna fringe, Sudesh Nangia of Delhi metropolitan fringe area, Hiralal on Bareilly fringe'.
- Today it can be suitably be classified as
- Inner fringe zone or area of convenience
- Outer fringe zone or slowly progressive zone.

Types of Rural Urban Fringe

The **rural-urban fringe is a dynamic zone**. It **changes its shape and limits with an increase in urban facilities**. The fringe area can be placed in **two groups.**

Primary urban fringe – This belt **touches the outer administrative limit of the city.** After development, it witnesses rapid development of urban facilities and various activities. Andrews has named it urban fringe while the outlying adjacent zone is named Reinmann. Myres and Beegle call it 'True fringe' 'Inner fringe' by Whiteland.' Inner fringe or urban-suburban fringe' by MMP Sinha.

Secondary urban fringe – Secondary urban fringe is an area **extending outside the primary urban fringe**. It has primarily rural characteristics which have developed slowly. **Urban functions are less.**

Structure of Rural Urban fringe

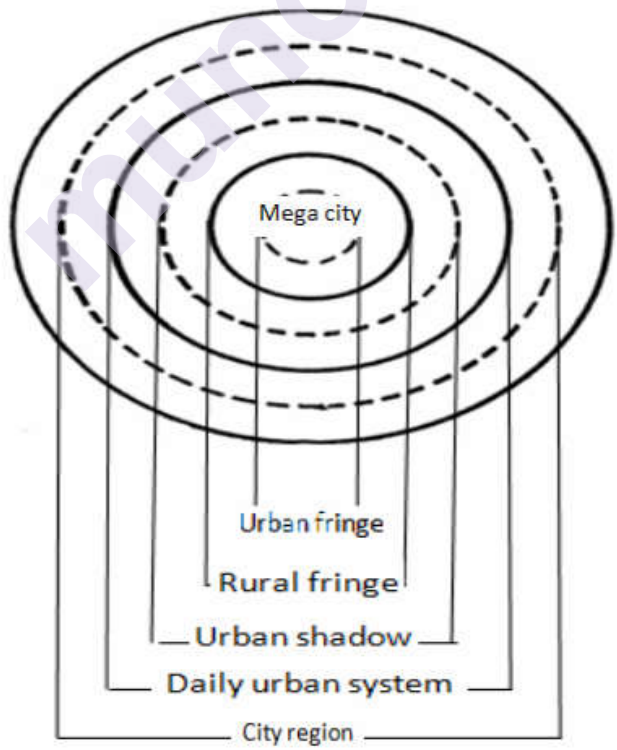
Urban fringe: It is characterised by the **sub urban growth, the urban corridor, housing colonies and the village panchayat** which have turned into newly residential urban villages.

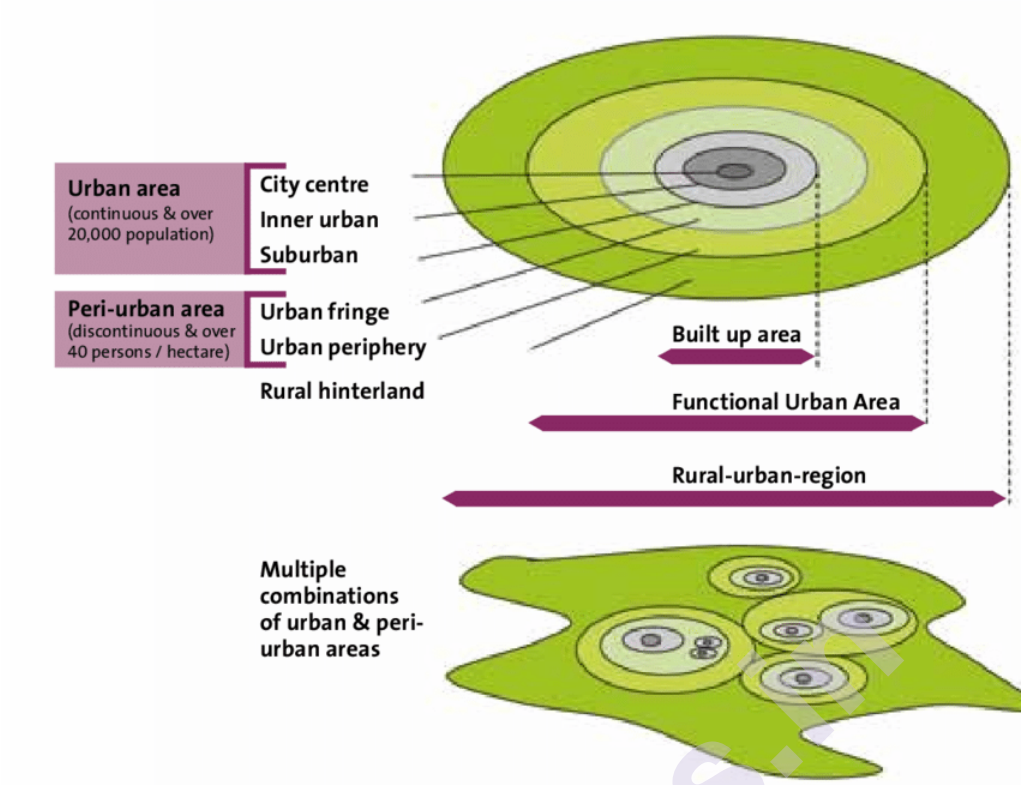
Rural fringe: It includes urban land usage like **crematorium, sewage treatment plants, polluting industrial units, industrial slums and haphazard growth of urban commercial markets.** Rural land use still prevails and occupational change is more perceptible than landscape change. This is garbage or dumping ground of city.

Urban shadow: This is the **perspective area** where **fringe will expand and it is witnessing the rising pressure of land,** there is influence of urbanisation and it is mostly characterised by market gardening. It is still rural in nature and **land prices are sky rocketing**.

Daily urban system: It is also called as **commuter's zone** from where people commute to Rural Urban fringe for the sale, purchase, business and commerce with the city businessmen. There are **functionally integrated villages** which are suppliers to daily city demand.

City region: It is the largest possible area of urban influence.





Stages of growth of Rural Urban fringe

Rural stage: In this stage agriculture land use is predominantly in terms of **intensive grain farming**. Village panchayat and village culture dominate and urban influence is negligible.

Agricultural land use change: The influence of city has been arrived and agriculture has been transformed to meet the demand of the city. **Market gardening** products and dairy has replaced the intensive grain farming.

Occupational change: Agricultural labours and cultivators are turning into city workmen and working in tertiary/service sector. Due to high cost of land many agriculturists turn landless as agricultural land is required for city purpose.

Urban land use: Crematorium, sewage treatment plants, airport, bus station, industrial units, Small Township and suburbs develop over the region. Slum and squatter settlements also appear.

Urban village stage: Almost every part of rural landscape has been transformed into urban land use. Colonies, hypermarkets, marketing centres, wholesale markets develop. **This stage is marked by unplanned and haphazard growth** which brings urban miseries. Thus, immediate urban policy is required for redevelopment of the region. Ultimately with redevelopment plan the urban village mixes with main city.

Problems of Rural Urban fringe

- **Unplanned and haphazard growth.**
- Urban garbage and the dumping ground of city with **land pollution and underground pollution.**
- Crematorium, sewage treatment plants
- Slums and associated problems
- The fringe area suffers **concentration of land ownership, speculation on land, and rapidly rising land values.**
- **Polluting industries** are shifted to fringe areas
- **Crime and vandalism** due to interaction of two interacting cultures since, urban temperament differs from rural.
- **Social psychological changes** and social alignments are happening. Beliefs are broken and there are more disruptions in societies and families.
- **Lack of water supplies, no public sewage disposal, unplanned streets.**
- Outside the municipality limits, small towns and revenue villages **lack administrative and financial infrastructure.**
- The fringe area served by **poor public transport facilities.**

Reason for development of rural urban fringe

- It should be **better visualised as Rural-Urban Continuum then Rural Urban Fringe zone.**
- Some of the **driving forces of the development of the fringe areas** can be outlined as follows.
- **Population Increase**
- **Increased Income and wealth**
- **Transportation and communication technologies**
- **Increased investments in new infrastructure.**
- **Growth of Rural Urban Fringe** is basically due to external and internal factors
- **Internal factors:** These factors **encourage people to leave the city and settle outside**.
- Increasing cost of land rent due to paucity of space within the city.
- Environmental degradation

- Lack of residential houses.
- Growing demand of land for functions that can't be performed in the interior of towns.
- **External factors**: These work as the **pull factor**
- Commuting facility (developed transport)
- Low cost of land
- Free from municipal taxes
- Environment stability

Beneficial development in the rural-urban fringe area:

The rural-urban fringe is characterized by a mixture of land uses, most of which require large areas of land.

- **Housing developments** as urban sprawl continue
- **Science and business parks**
- **Hypermarkets and superstores**
- **Retail parks and out of town shopping centers**
- **Office developments**
- **Hotels and conference centers**
- **Airport expansion**

5.5 METROPOLITAN PLANNING: A CASE OF MUMBAI METROPOLITAN REGION

- Metropolitan areas are the country's primary engines of growth and economic development. Metropolitan-level planning, implementation, and coordination are required for urban transportation, water supply, waste management, policy, and public health, among other things. Furthermore, the scale of services required in these metropolitan areas is enormous.

- The **Metropolitan Planning Committee** is established by **Article 243ZE** of the Constitution.

What Is The Metropolitan Planning Committee?

- A metropolitan planning committee shall be established in each metropolitan area to prepare a draft development plan.
- The state legislature has the authority to make the following provisions:

  - the composition of such committees;

- the manner in which members of such committees are elected;
- the representation of the Central government, state governments, and other organizations in such committees;
- the functions of such committees in relation to metropolitan planning and coordination; and
- the manner in which chairpersons of such committees are elected.

- The act requires that two-thirds of the members of a metropolitan planning committee be elected from among themselves by the elected members of the municipalities and chairpersons of the panchayats in the metropolitan area.
- The proportion of these members on the committee should be proportional to the population ratio of the municipalities and panchayats in that metropolitan area.
- The chairs of such committees are responsible for submitting the development plan to the state government.
- A metropolitan planning committee shall:
- Have regard to–
- the plans prepared by the Municipalities and Panchayats in the Metropolitan area;
- matters of common interest between the Municipalities and Panchayats, including co-ordinated spatial planning of the area sharing of water and other physical and natural resources, integrated development of infrastructure, and environmental conservation;
- the overall objectives and priorities established by the Government of India and the State Government;
- the extent and nature of investments likely to be made in the Metropolitan area by agencies of Government of India and the State Government, as well as other available resources, whether financial or otherwise;
- consult such institutions and organizations as the Governor may specify.

Constitutional Provisions

Article 243 ZE provides for the constitution of Metropolitan Planning Committees.

Significance

Significance

- The Metropolitan Planning Committee is expected to be a high-level, democratically elected body that will provide a constitutional mandate for the entire metropolitan development planning process.
- It prepares a Metropolitan Area Development Plan Draft.
- Coordination of plans developed by municipalities and panchayats in the Metro area, including co-ordinated spatial planning of the area.
- Coordination and resolution of common issues involving Panchayats and Municipalities in the metro area, such as water and other physical and natural resources sharing.
- Allocates resources made available by the state and central governments to institutions at the local level.
- Schedules and prioritizes development projects or projects involving a large number of Panchayats or urban areas.
- Advice and assists local governments in developing development plans.
- Serves as a link to disseminate development objectives, policies, and priorities of the Central and State Governments among various local bodies by developing operational guidelines that can be incorporated into the respective local bodies' plans.
- Conflict resolution and avoiding areas of overlap among the various agencies operating in the metropolitan area.

Shortcomings

Shortcomings

- State governments are hesitant to cede authority.
- MPC has limitations as a supra-municipal authority as it lacks executive powers, staff, and budgets.
- MPCs were supposed to lay the groundwork for metropolitan governance, but in most cases, they do not exist.
- Where they are formed, their functionality is dubious, with the limited role of local elected representatives raising additional concerns about democratic decentralization.
- Niti Aayog has highlighted the non-availability of the following:
  - An inter-agency coordination mechanism, including special purpose vehicles (SPVs), for effective delivery.
  - A solid spatial plan that serves as an overall framework for smart city planning and implementation.
  - Intelligent mechanisms for amplifying the voices of the urban poor, slum dwellers, migrants, and other marginalized citizens.
  - A digital master plan, also known as a digital strategy and road map.

- Decision-making based on data for service delivery and resource sustainability.
- Access to skilled human resources to handle a variety of functional domains.
- Financing smart cities and ULB financial sustainability

- It has yet to acknowledge that disaster management, mobility, housing, climate change, and other issues transcend municipal boundaries and necessitate regional-level solutions.

Mumbai Metropolitan Region

- **Mumbai Metropolitan Region** (abbreviated to **MMR** and previously also as **Greater Bombay Metropolitan Area**), is a metropolitan area consisting of Mumbai (Bombay) and its satellite towns in the northern Konkan division, of the Maharashtra state in western India. The region has an area of 6,355 square kilometres (2,454 sq mi) and with a population of over 26 million it is among the most populous metropolitan areas in the world.[4]
- Developing over a period of about 20 years, it consists of nine municipal corporations and eight smaller municipal councils. The entire area is overseen by the Mumbai Metropolitan Region Development Authority (MMRDA), a state-owned organisation in charge of town planning, development, transportation and housing in the region.
- The MMRDA was formed to address the challenges in planning and development of integrated infrastructure for the metropolitan region. The areas outside Brihanmumbai (Greater Mumbai) and Navi Mumbai have lacked organised development. Navi Mumbai, developed as one of the largest planned cities in the world, was promoted by a state government-owned company, City and Industrial Development Corporation (CIDCO).
- The region has had problems related to haphazard and illegal development as a result of rapid urbanisation. Villages along the NH3 in Bhiwandi Taluka are examples of haphazard developments in the MMR, with some of the largest warehousing areas in India. Government agencies such as the Town Planner and Collector of Thane have had challenges in addressing unorganised development.

5.6 CHECK YOUR PROGRESS/EXERCISE

Q.1. Explain the micro planning in rural area in India .

Q2. Discuss in details of backward area n India.

Q3. What is the metropolitan region give the reference of Mumbai metropolitan region.

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