

RG_23: Population and Resource Regions

<i>SUBJECT</i>	<i>GEOGRAPHY</i>
<i>PAPER</i>	<i>Resource Geography</i>
<i>MODULE</i>	<i>Population and Resource Regions (2)</i>
<i>Module ID-</i>	<i>RG-23</i>

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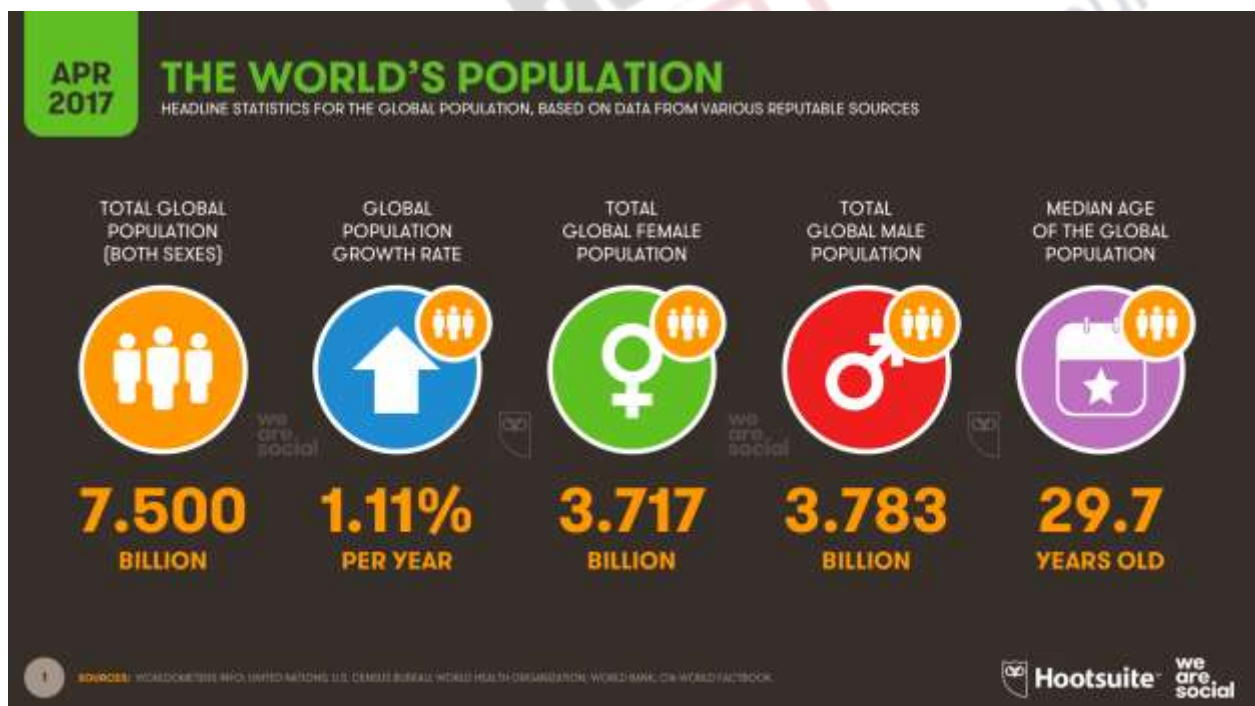
Learning Objectives: After studying this unit you should be able to:

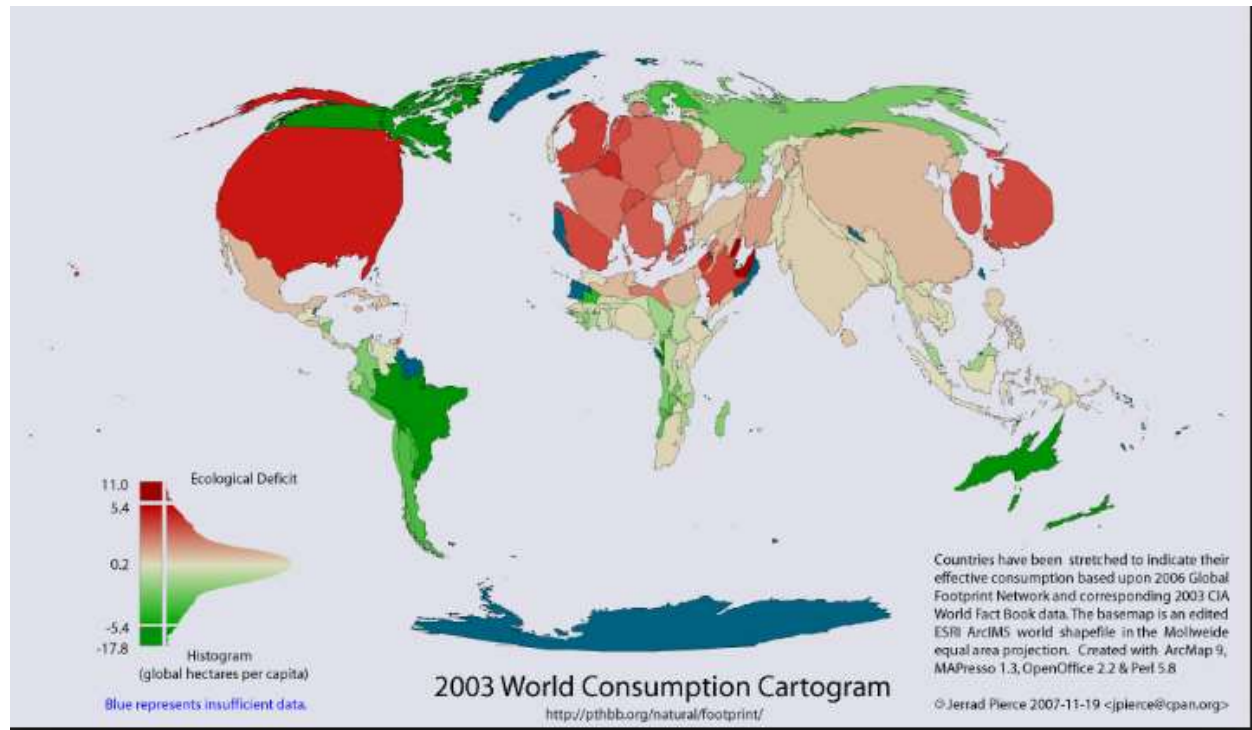
- Understand World's scenario of population and resource
- Delineate Ackerman's system of population resource regions.
- Comprehend the comparative spaces of the world in relation to population & resource relationship.
- Identify Population resource regions of India.

Keywords

Region, Climate, FAO, Industry, Hunger.

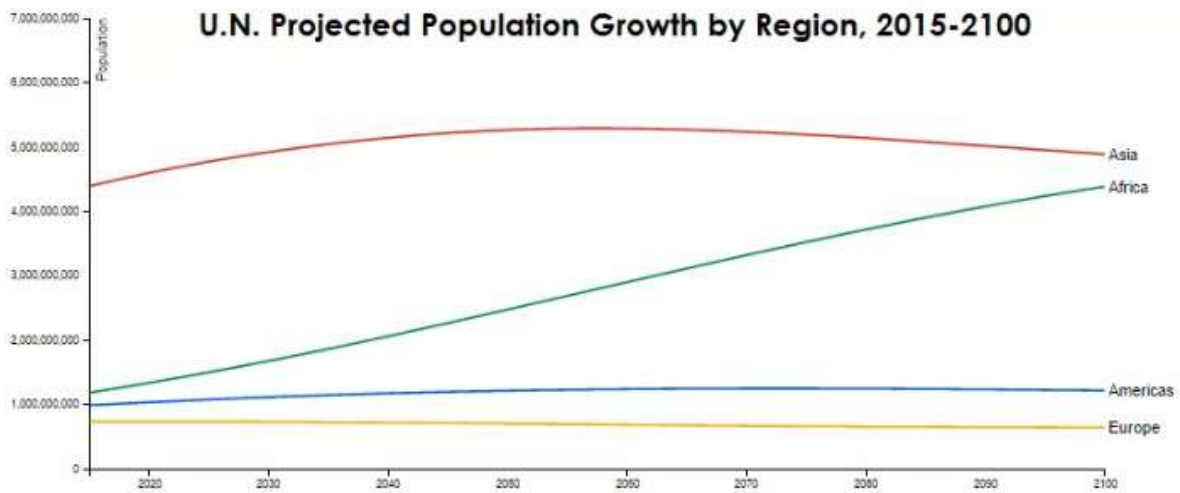
Global population and Resource





Human population is itself a resource that plays key role in the discovery, exploitation and management of different natural resources. The level of resource utilization determines the level of economic development and the carrying capacity of the land. “Today approx. 54 % of the world population are urban, as per UN report by 2050 it is expected to reach 66%. Around a third of the urban population survive in slums and by 2030 the number of slums dwellers could be double. One fourth of the world population will be over 60 years old excluding Africa continent. Around 65% older population live in developing countries today it will likely to reach 80% by 2050, UN Repor,2015”.

Nearly all of the world's population growth by 2100 will occur in Africa. By that time, the populations of Asia, Europe, and the Americas will be flat or shrinking.



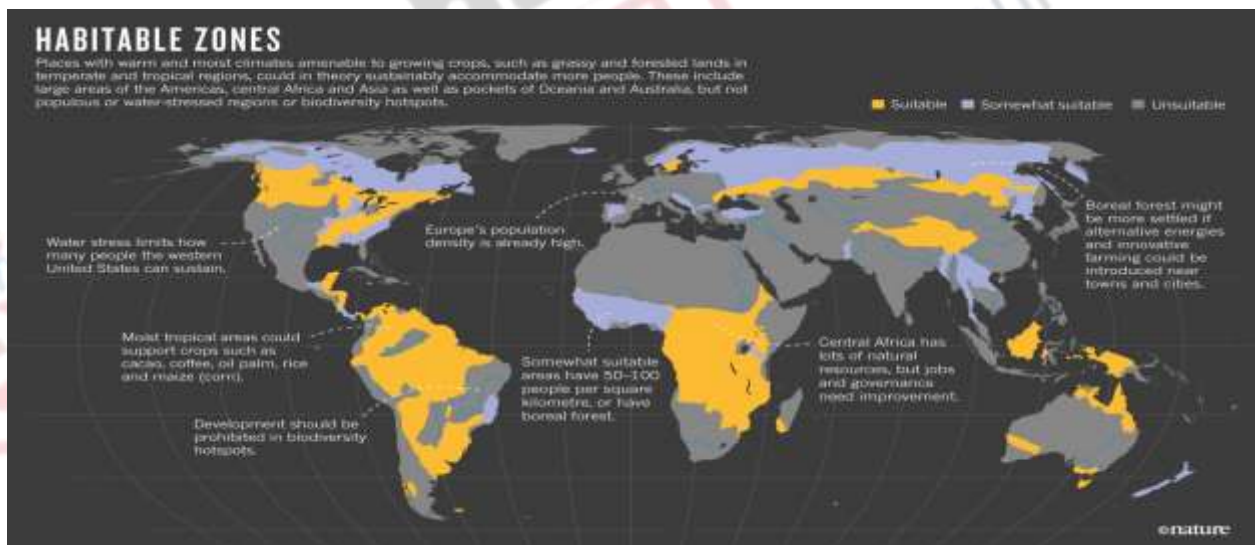
U.N. population projections, 2015-2100

Food and Agriculture Organization of the United Nations (FAO) estimated hunger problem can be achieved through the Millennium Development Goals 2015 but it is replaced in sustainable development goals, “end hunger, achieve food security and improved nutrition and promote sustainable agriculture” by 2030. “The largest number of world’s population suffers from hunger due to lack of resources or over population. Total 795 million people it means one in nine people in the world do not have enough to eat, 98 % undernourished people of the world live in developing countries. Asia have worst hunger (525.6 million) people following the Sub-Saharan Africa (214 million) and Latin America and the Caribbean (37 million). 60% hungry population in world are women. About 50% of pregnant women suffers from lack maternal care, resulted 300,000 maternal deaths annually from child-birth in developing countries. In the developing countries, 1 out of 6 infants are born with a low birth weight in developing countries FAO, 2015”.

Table 1: Prevalence (%) of undernourishment

Year	World (%)	Developed Countries (%)	Developing Countries (%)
1990–92	18.6	<5.0	23.3
2000–02	14.9	<5.0	18.2
2005–07	14.3	<5.0	17.3
2010–12	11.8	<5.0	14.1
2014–16	10.9	<5.0	12.9

Source:FAO:2016



Population and resource region

Ackerman's system of population resources regions adopted here must not be regarded as the ultimate tool in analysing population-resource nexus but only as a promising beginning. "Ackerman used three basic criteria for devising the world's regional scheme of population-resource ratio.

These include:

1. Population factor

2. Resource factor
3. Technology factor

The most critical is the magnitude and quality of available technology, Gersmehl(2005)". Where the technology is highly developed and the technically skilled personal are abundant, as in the US and Europe, the resources and prosperity are at adequate thought not necessarily at optimum level. "Ackerman while using the three factors of population, resource and technology put greater emphasis upon the technology, *ibid* (2005)". Therefore,

Ackerman "categorised the following five broad population-resource region of world.

- A.** Technology source areas of low population-resource ratio or the United States type
- B.** Technology source areas of high population-resource ration or the European type
- C.** Technology deficient areas of low population-resource ratio or the Brazilian type
- D.** Technology deficient areas of high population-resource ratio or the China or Egyptian type and
- E.** Technology deficient areas possessing a few food producing resources or the Arctic desert type, Ackerman(1967)".

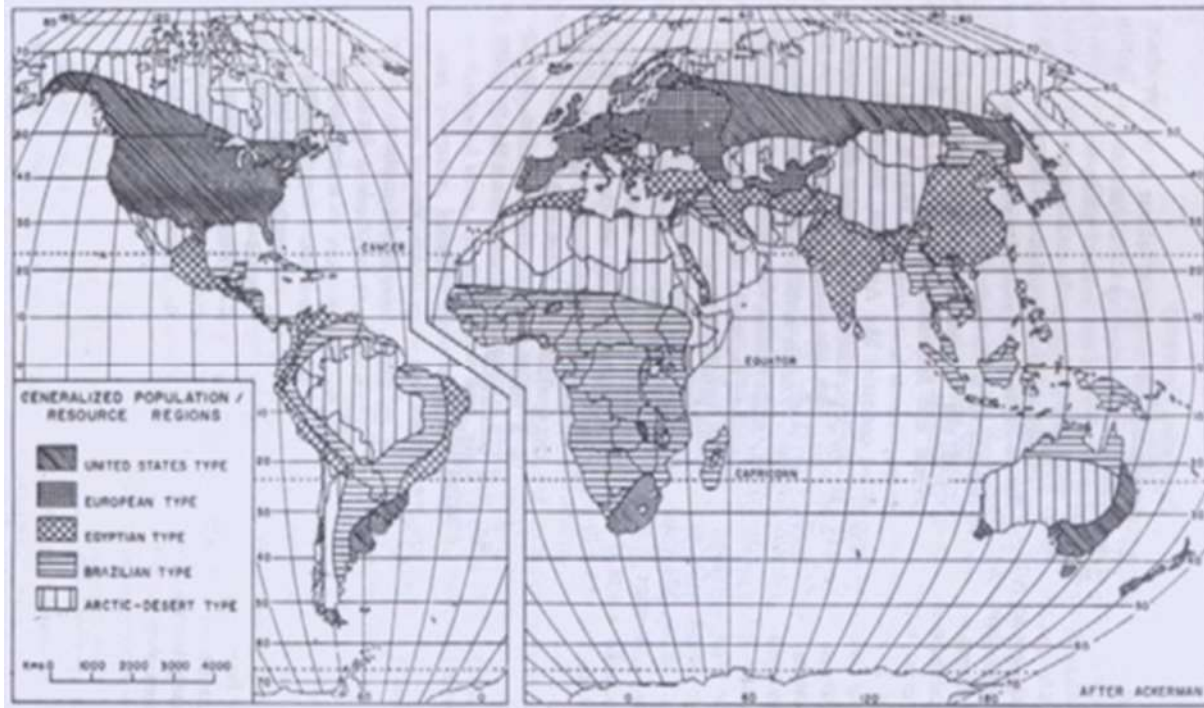


Figure 4 Distribution Ackerman's Population-resource region.

United States Type

These cover large territories that are well stocked in terms of known or potential resources. The population of these regions is also not very large. Mostly these have small to moderate population. Technologically skilled persons are in abundance not only for the national territory but also for export to the technology deficient areas. The society is well equipped with social and technological means to maximize the national as well as individual affluence. By virtue of their extensive territories and general physical resources, these regions are able not only to create lofty social and economic estates within their own terms by virtue of their political and commercial arrangements. In this nearly ideal concurrence of factors though the economy had developed rapidly, it has caused irreparable damage to the habitat due to the destructive manner in which the people of these regions have used their own as well as outside resources, especially the soils, forests, and grasslands, minerals, mineral oil, and water supplies.

The countries included in this group are the United States, Canada, Australia, New Zealand, part of Russia (more recently settled central and eastern parts) and Argentina. The United States type population-resource and technology relationship is the most recent of the types, and it did not exist about 100 and 150 years ago. Most of these countries were Brazilian type before gaining their present status.

European Type

These regions could also be termed as elite regions. Here the territories are small, the resources are limited and the populations are larger in comparison to the United States type. The narrow territories and still narrower resources coupled with larger populations produce intensive local economies and conservative attitude towards resources. The social skills (technology) and the ingenuity, on an average, is no less impressive than that in the United States type. The prosperity of these regions was more dependent upon the degree of international exchange of skill, technology, goods, etc. the skilled services and advanced industrial goods are exchanged for such services and goods that are locally deficient e.g., petroleum oil, foodstuffs, unskilled or semi-skilled labour. There is a modest search for additional domestic minerals, development of hydropower and improvement in already elaborate transportation network, new industrial process etc.

In these regions of large population and limited resources, there emerges as a struggle for existence, supported by close trade ties to get the best by the collaboration of scattered resources and raw materials. Such region can ill afford the destructive use of their local and outside resources. The countries included in this group are those of western, southern and Eastern Europe (excluding Romania, Bulgaria, Turkey, Yugoslavia).

Brazilian type

These are the areas that are technology deficient but fairly stabilized in terms of size of population. These areas are usually of fairly substantial size, where the present day population size is well below the level that could comfortably be supported by known resources of the region. Their present status is only a transitional status, which could lead them either to European type or to China/Egyptian type depending upon the development of their resources.

Most of the lands of Brazilian type are confined to three regions Indo-China region, Tropical Africa region and Latin America. Although the physical resources of Indo-China region could support much more highly developed human societies that what prevail there now, yet formidable political and social barriers block advancement. Australia, much of tropical Africa can be considered underpopulated but many physical and social problems hamper Bolivia, Venezuela, interior Argentina and Paraguay claim this status.

Egyptian Type

Most discouraging type of population- resource region it refers to the lands that suffer from great imbalance of population and resources. These are the areas that are most densely populated. Their population are rapidly growing. The Ecumene in these regions is confined largely to alluvial valleys. The main stay of economy is agriculture. Most of the cultivable land is devoted to food crops. There is very little possibility of bringing more areas under plough. The agricultural sector is not scientifically developed so that even with very large proportions of populations being engaged in agricultural pursuits, the food producing capacity of these islands is limited. The technology is yet to be advanced. The physical resources are limited. Capital resources are too are limited. There is no significant mineral wealth. The level of social development is low. There prevails mass illiteracy. There is complete lack of advanced skills. The people have conservative or negative attitude. There is a situation of hand to mouth living.

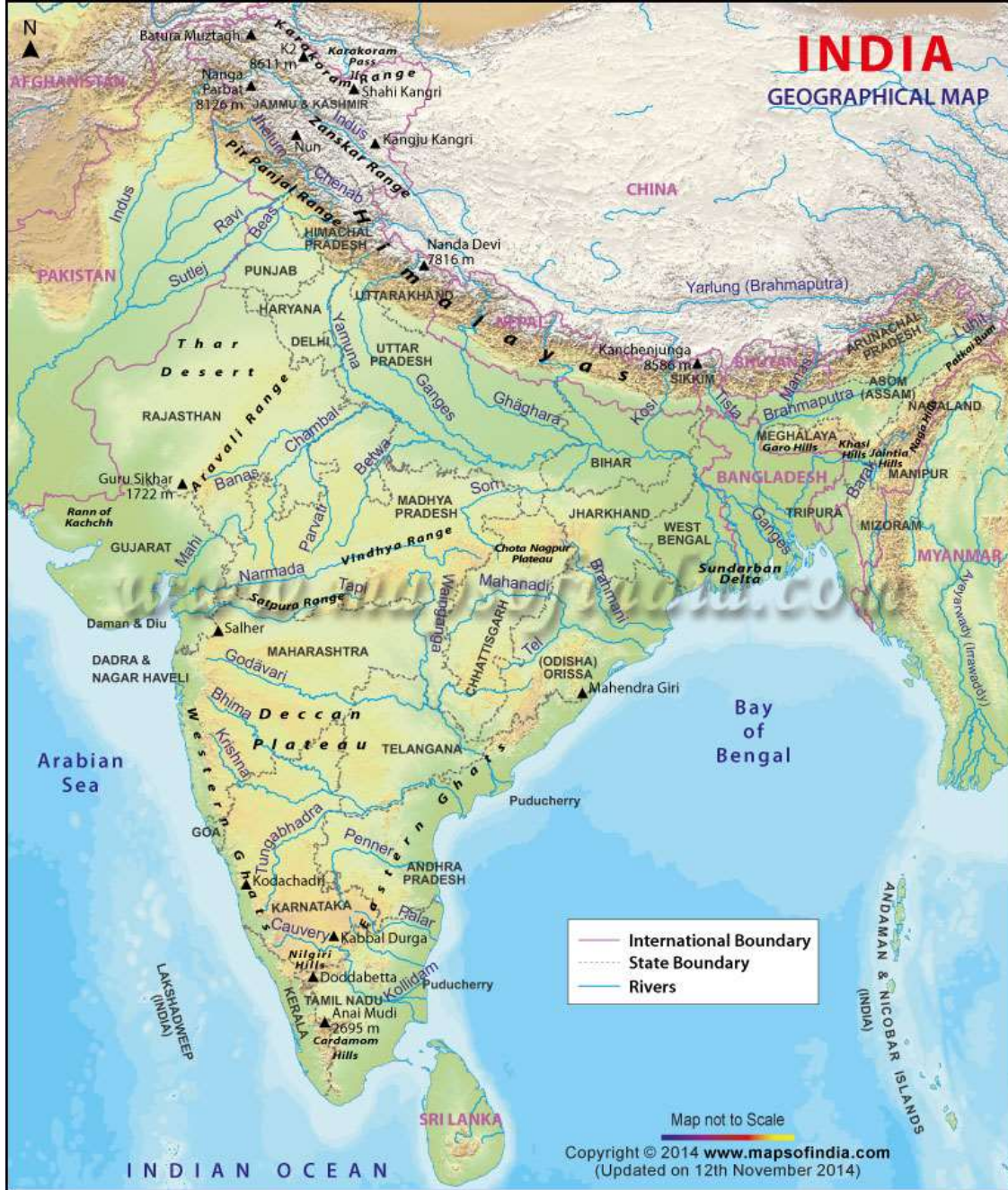
Egypt, Algeria, Tunisia, Morocco in Africa; Sicily, Sardinia, Southern Italy, Albania, Greece, Southern Yugoslavia in Southern Europe; Haiti, El Salvador, Guatemala in the New World; and China, India, Pakistan, Bangladesh, South Korea, Nepal, Sri Lanka, Afghanistan, Lebanon, Cyprus, Jordan etc. in Asia are the typical areas of this type.

Arctic desert type

This category of population-resource evinces little interest among population geographers due to obvious reasons. These are fairly extensive areas, which have remained entirely uninhabited due to excessive aridity, or cold, physical isolation (remoteness) or inhospitable terrain. There are either no settlements at all or at best, these are the homes of small, marginal groups. Their significance, at present, lies in the abundant supply of raw materials-minerals ores or fuels, furs, marine life, and hydroelectric power potential. However, unforeseen technological advancements in the coming years may enhance their importance significantly.

Entire Antarctica and Greenland are the major area of this type. Greater parts of northern North America, much of northern Eurasia and the islands north of these continents also fall in this category. It holds true of Sahara and arid regions of southwest and central Asia. Empty lands of Mexico, southwest United States, desert areas of Peru and Chile, Central Australia, Patagonia, Amazonia, Southwest Africa all Claim this status by virtue of their deficiencies.

Population resource regions of India



India, Bangladesh, and China



Figure 6: Population hot spots depicted by yellow are located in India , Bangladesh and China

There has been identified 19 population resource regions in the country on the basis of Population-resource, population growth, resource potential and levels of socio-economic development has. These region are grouped again in three broad categories of

- Dynamic population resource regions,
- Prospective population resource regions and
- Problem population resource regions.

A. Dynamic Population-Resource Regions

These areas are linked with big industrial and urban clusters, attracts immigration from rural areas due to sufficient scientific and technological resource potential. It consists of five regions covering the parts of West Bengal

Delta, Deccan Trap (Maharashtra and Gujarat), Tamil Nadu, Punjab Plains and Ganga-Yamuna Doab, and South- Eastern Karnataka Plateau.

There has seen the maximum pulling effect over the rural population in the deltaic region of West Bengal owing to heavy concentration of industries in the Hugli industrial region. The Damodar industrial region is adjacent to it. Deccan region is of equal importance which has attracted maximum development of industries and urbanization in recent years.

The industrial axis like, Mumbai, Ahmadabad developed the infrastructural facilities like transport, power, action and health for the growth of tertiary and quaternary services in centers likes Nagpur and Solapur etc. Which have great effects over the population of the neighbouring areas and towns.

Tamil Nadu region has a well-developed area of high population density, low growth balanced industrial-commercial activities. Chennai and satellite towns have great attractiveness over labour and man-power from the surrounding areas. Madurai, Coimbatore, Neyveli, Tuticorin have significant contribution in absorbing the sure from rural population.

The Punjab plains and the Ganga-Yamuna Doab have been the agricultural traditional areas. But due to the increased growth in industrialization, urban development and Delhi metropolitan region have magnetically attracted large rural population.

The southern Karnataka Plateau consisting of Tumkur, Mandya, Bangalore, Mysore and Kolar districts is the fifth dynamic region of India. The rapid industrialization around Bangalore has cemented the way for economic growth, high-tech industrialization and urbanization which have attracted large number of people across country.

B. Prospective Population-Resource Regions

The socio-economic restrictions, obstructed the utilization of rich natural resources. Due to this, the scattered patches with some industrial centres have

emerged in recent years. There are three regions included in this group. They are- The North Eastern region consisting of 17 districts of Madhya Pradesh and Chhattisgarh, 6 from Jharkhand and 7 from Orissa is the richest mineral bearing area of the country.

It has vast reserves of coal, iron ore, limestone, dolomite and mica besides rich forest wealth. These resources have not been fully utilised to promote industrial development in the region. There is also rich in mineral resources near to Godavari basin covering parts of Telangana plateau and Andhra coast. These have not been properly utilised to accelerate the process of economic development.

There is another such prospective region in Malwa Plateau region of western Madhya Pradesh which is lagging behind in economic development. Despite rich deposits of copper ore, zinc, lead, lignite, gypsum, mica, limestone and salt the industrial development is in juvenile stage. Most of this development is centred on cities like Indore, Gwalior, Bhopal, Jaipur, Jodhpur, Ajmer and Marotah etc.

Western and southern Karnataka plateau including Goa has good prospects of hydel power development and mineral resources which may be extracted for the development of iron and steel, alloy, and cement industries. The Brahmaputra valley has sufficient potential for industrial development due to the availability of petroleum, coal and rich forest resources. Most of the labourers who work in petroleum refining industry, construction work and agricultural operations, attracts from the densely populated areas of eastern Uttar Pradesh, Bihar and West Bengal.

C. Problematic Population-Resource Regions

This category includes nine resource regions with different physic-cultural background. These areas are characterised by unfavourable population resource balance and, hence, offer little opportunity for development. While

some of these regions suffer from the problem of over population and have now reached to saturation point and other possesses the meagre natural resources to obstruct the process of development.

In some of these regions the environmental restrictions, lack of infrastructural facilities, paucity of skilled labourers, and uneconomic utilization of resources are major obstacles in the path of development. Kerala coast, Orissa coast, Middle Ganga Plain and Lakshadweep group of islands are included in first category where high population density is the main cause for poverty and deprivation.

The Konkan coast and Rajasthan arid plains suffer from resource crunch so as to support large population clusters. Hilly areas like North-Western Himalaya, Eastern plateau and Andaman and Nicobar group of islands are included in third category where undulated dissected topography and thin soil cover provide fewer opportunities for good agricultural harvests. Rugged topography and limited development of transportation have restricted the utilization of hydel, for mineral resources of the region for economic opportunities. Owing to unable conditions for human inhabitation these areas face serious problem in terms of population and resource development.

Population-resource regions throw such regional disparities which are likely to be emphasized in future. While dynamic resource regions offer greater possibilities for attracting migration, the problem of regions putting the challenges to the planners and policy. Need to devise the new strategies to accelerate the pace of reference in these regions.

Summary

- Ackerman categorised the region on the basis of resource, population and technology factor. But he has given the more emphasis on the technology. He has given statement on Unites states type region have potential resource with low population and European type are elite region

with high population. Brazilian type are technology deficient but fairly stabilize and Egyptian type are more discouraging region. The arctic population has little interest.

- India has categorised broadly in three population resource region the first is the dynamic population-resource region, it include urban cluster and industrial developed region. The second is prospective population-resource region that include the socio-economic restrictions and rich with the natural resource and third is the problematic population-resource region, includes different physical cultural background, unfavourable resource for population and little development.

