

Population Resource Regions

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Definitions

- **Over-population** – when there are too many people and not enough resources to provide a high standard of living at a given level of technology.
- **Under-population** – when there are not enough people to fully exploit the available resources.
- **Optimum population** – when the population of a country is fully utilizing its available resources and technology to provide the highest standard of living possible.
- **Carrying capacity** – the number of people that can be supported by the available resources within a particular area without the long-term depletion of those resources.

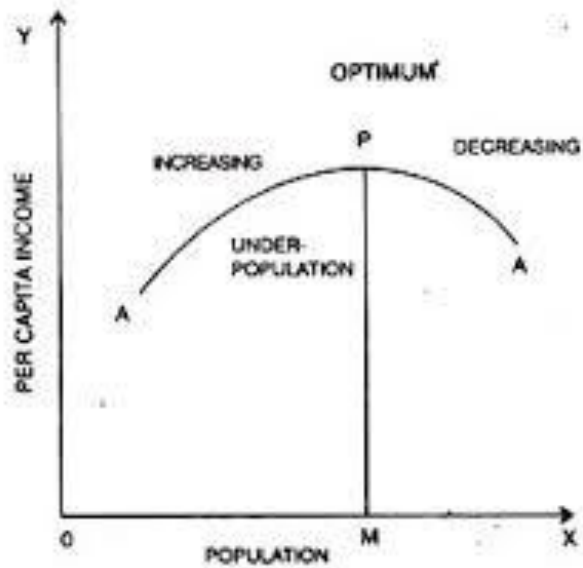
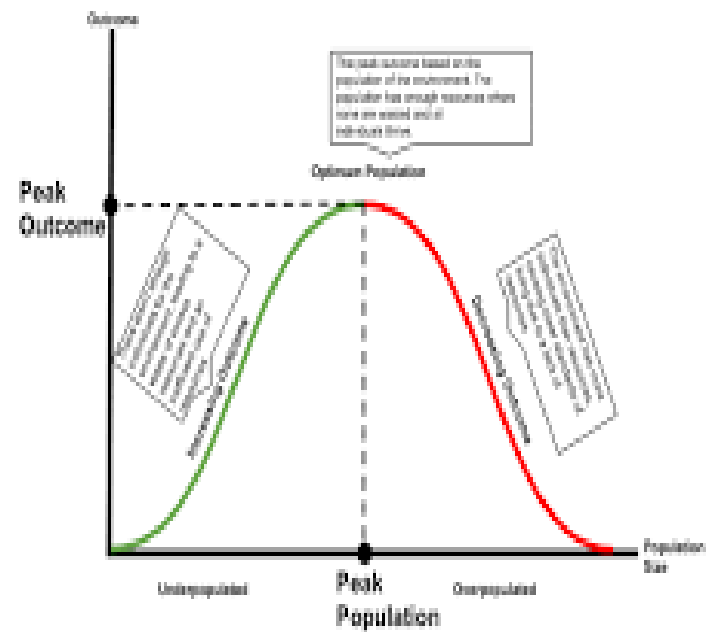


Fig 13A. The Concept of Optimum Population



Optimum Population

- Optimum population is where the amount of resources available in a country is equal to the country's population needs, so there are enough resources to maintain its population.
- If it is below its optimum population then it has more resources than needed for the population, if it is above then it has too little resources to maintain its population. To achieve optimum population, a country must change some of the following dimensions to lower or increase their fertility rate, before they can achieve optimum population.
- Immigration, age distribution and changes in lifespan must also be taken into account.

Resources

- **Resources are the foundation of wealth and power because people are material using social animals.**
- According to Erich W. Zimmermann, Resources are living phenomena, expanding and contracting in response to human effect and behavior..... To a large extent, they are man's own creation. Man's own wisdom is his premier resource - the key resource that unlocks the universe.....
- Resources are an expression or reflection of human appraisal, and without people, there would be no resources.
- Resources are not static, but expand and contract in response to human needs and human actions.

Population- Resource

- Population is the most important component of population geography.
- These different abilities with different human group to understand and exploit their environment have necessitated the need to compare human numbers with respect to local physical environment which owes to satisfy their needs now and also for the generations to come.

Population : Resources



world's regional scheme of population /resource ratio

- Edward A. Ackerman has used three basic criteria for devising the world's regional scheme of population /resource ratio, which are:
 - Population factor,
 - Resource factor and
 - Technology factor
- Among these three variables used in this scheme, **the most critical is the magnitude and quality of available technology**. He suggested a **five-fold classification** of the world into population/resource regions on the basis of population resource ratios and the availability of technology:

1. **United States Type:** About one sixth of the world's people live in technology-source areas with low population/resource ratios, as in much of North America, Australia and New Zealand and the erstwhile Soviet Union.
2. **European Type:** One sixth live in technology-source areas with high population/resource ratios, where industrialization and technology have permitted an expansion of resources through international trade. Most of Europe and Japan fall in this category.
3. **Egyptian Type:** Roughly one half live in areas which are technology-deficient with high population/resource ratios, as in India, Pakistan and China. This type epitomizes some of the most severe population problems.
4. **Brazilian Type:** One sixth live in technology-deficient areas with low population/resource ratios, as in much of Latin America, Africa and South-East Asia, where resources sometimes remain unused because of the problems of developing difficult environments.
5. **Arctic- Desert Type:** The largely uninhabited ice caps, tundra's and deserts are mostly technology-deficient and offer little food-producing potential at the moment.

POPULATION – RESOURCE REGIONS
(AFTER ZELINSKY)

POPULATION – RESOURCE REGION (PRR)

- Geographers have always concerned with regions and have often examined the problems of resource adequacy and population growth at great length, yet a complete lack of attempts to regionalise on the basis of population-resource ratio only points to the difficulties involved in quantification of the two main factors of population and resources.
- One of the useful efforts in this regard has been made by W. Zelinsky in the mid 1960s.
- Zelinsky recognized five types of Population – Resource Region (PPR):
 1. Type A
 2. Type B
 3. Type C
 4. Type D, and
 5. Type E

1. Type A

- Present and future possibilities of resource utilization are exceptionally high.
- Such countries with low population, high technological development have the potential of rapid economic development.
- Technical personnel are not only high in number but also consigned to countries where investments in the form of multinational corporation exists.
- Generally, these are the counties with vast natural resources and more than justified resource utilization capacity.
- USA, Canada, Australia, New Zealand, Russian Federation, Argentina and South Africa are examples of A type PRR.
- Other countries do not stand a chance of being designated as A type region even in the near future.
- On the contrary, a few of the countries belonging to the A type fold will cease to belong to this category in the future.
- The A type regions have come into existence only in the last century whereas all the other types claim to have a longer history.

2. Type B

- There are areas where technological development, resource utilization and environment sustains have been judiciously balanced.
- These are elite region but unlike the A type region, these countries have limited geographical extent.
- Natural resources are relatively low but population growth is relatively higher compared to the type A regions.
- There is maximum local utilization of resources. However, in terms of technological development, these countries are behind the A type region.
- Export of consumer durables and technological know how have sustained in these countries and paved the way for all round economic development.
- B type regions are improving their technological know how in order to utilize the conventional resource potential to the maximum.
- On account of limited geographical extent, natural resources are not in plenty in such regions.
- Countries included in the B type regions are West and Middle West Europe, Romania, Bulgaria, Israel and Japan.
- These countries were originally part of type C but elevated to their present status in the last 200 years.

3.Type C

- Countries belonging to this group have bountiful natural resources but are slightly backward in terms of technology.
- In addition geographical areas of countries belonging to this region are might extensive e.g. Brazil.
- Such regions are intermediate between Ackerman's European and Egyptian region with greater utilization of the natural resource and general improvement in the standard of living.
- Countries of such category could be finally promoted to the European type region group. However, it would be extremely difficult to stabilize the rate of economic development in these countries because population increase at a very high rate in all of these countries.
- In case economic development is not at par with population growth, some or all of these countries would be demoted to the next lower Egyptian type state.
- Such type of regions are formed of the following countries with three major geographical groupings –
 - i. Indo – China
 - ii. Tropical Africa
 - iii. Latin America

4. Type D

- In terms of population resource endowment Egyptian type or type D region have a long way to go. There is a wide disparity between population growth and resource utilisation.
- Settlement are clustered in the narrow riverine areas.
- Agriculture forms the backbone of the economy.
- Food crops are mostly cultivated. Agricultural innovations are required to promote multiple cropping. Net sown area is limited in extent.
- Both capital investment and natural endowment are limited.
- Mineral resources are practically non-existent.
- Social and cultural uplift is minimum.
- The great majority of the population are illiterate.
- Egypt, Algeria, Tunisia, Morocco are the African counties that belong to type D.
- Greece in Europe; China, Pakistan, Bangladesh, Nepal, Sri Lanka are all examples of type D region with better population control and impressively higher economic development.
- China and India may be promoted to type B category.

5. Type E

- Hot and cold deserts, tropical marsh land and wastes are the geographical areas of the E type of PRR.
- Natural resources on account of inhospitable terrain and unfavourable climate are not properly utilized as a result economic development is either negligible or very low.
- Population growth is minimum.
- However, with the improvement of technology E type region can experience overall economic development and can be upgraded to the C or D type regional characteristics. .