POPULATION GROWTH AND DENSITY AS A MEASURE OF THE QUALITY OF LIFE

MARGARET CALLEJA
DEMOGRAPHY

A social science

Study of population

Identified on composition, size and spatial distribution

Comprises the dynamic processes of fertility, birth, death, marriage, migration and social mobility
The Demographic Book-keeping Equation states that:

\[ P_t = P_o + B - D + I - O \]

The formula implies that:

- \( P_t \) = Population at time “t”
- \( P_o \) = Population at an earlier time “o”
- \( B \) = Births between time “o” and time “t”
- \( D \) = Deaths between time “o” and “t”
- \( I \) = In-migration / immigration between time “o” and “t”
- \( O \) = Out-migration / emigration between time “o” and “t”

Theory of Demographic Regulation

Deriving from Charles Darwin’s “balance of nature” principle

Try to keep population equilibrium

Reason: to keep a balance with resources
POPULATION DENSITY

Number of people per unit area, usually people per square kilometer
QUALITY OF LIFE INDEX

- Refers to the component of development

- Two levels:
  - basic level which involves measures such as access to water, food, health and education etc.
  - higher levels which may include freedom of speech and religious worship
Quality of life index is measured by certain aspects of life such as:

- **Infant mortality rate** – the number of deaths of infants below one year per every thousand live births
- **Literacy** – defined by UNESCO as “the ability to identify, understand, interpret, create, communicate and compute, using printed materials associated with varying contexts
- **Life expectancy** – average number of years that individuals are expected to live depending on where and when they are born and spend their lives
- **Housing** – number of people owning a house and to the standard of living of houses
- **Economic activity** – types of jobs relating to sectors of the economy
  - primary sector: activities concerned with extraction or exploitation of raw materials
  - secondary sector: manufacturing industries
  - tertiary sector: providing services
  - quaternary sector: types of economic activity involving high technology and information services
The Concepts of TIME and SPACE Operating through different Scales

GLOBAL

REGIONAL

LOCAL
LOCAL AND GLOBAL PROCESSES

GLOCALISATION

LOCAL  GLOBAL

RELATIONSHIP BETWEEN THE LOCAL AND THE GLOBAL
PATTERNS ACTING AS TRIGGERING FACTORS

- DEMOGRAPHIC
- HISTORICAL
- POLITICAL
- ECONOMICAL
- SOCIAL
- CULTURAL
- TRANSPORT
- TECHNOLOGICAL
- INNOVATION

TRIGGER

POPULATION GROWTH AND DENSITY
LOCAL AND GLOBAL PROCESSES

• LOCAL PROCESSES
  ➢ PROCESS OF URBANISATION, SUBURBANISATION
  ➢ CHANGE IN LIFESTYLE – INCREASED STANDARD OF LIVING
  ➢ CHANGE IN JOBS – FROM PRIMARY AND SECONDARY TO TERTIARY AND QUATERNARY
  ➢ INCREASED CAR OWNERSHIP
  ➢ MORE ACCESSIBILITY – EVOLUTION OF TRANSPORT NETWORKS

• GLOBAL PROCESSES
  ➢ GLOBALISATION
  ➢ ECONOMIC
  ➢ POLITICAL
  ➢ CULTURAL
  ➢ SOCIAL
  ➢ TECHNOLOGICAL
Essay On the Principle of Population
1798

THOMAS MALTHUS
1766-1834

THEORY OF POPULATION RELATING TO RESOURCES

- Theory proposed a negative aspect of a large population
- Food production increases arithmetically whereas population increases geometrically
- Two kind of checks are needed in order to maintain a balance in the population
  - Preventive checks – controls on birthrate such as abortion, contraception and prostitution
  - Positive checks – rise in mortality such as war, famine and disease
ESTER BOSERUP
1910-1999

THEORY RELATING TO HUMAN POPULATION AND RESOURCES

- Her theory proposed a positive aspect of a large population
- Identified a new form of agricultural intensification based on technology, population and land
- The technology factor was the focus of her theory
- Population growth is the trigger of technological change
First Demographic Transition

Explains population increases and decreases through variations in the birth rate and death rate.

Identifies four stages:

Stage 1 – fluctuating birth rates and death rates

Stage 2 – death rates start to drop as a result of improvements in medicine

Stage 3 – families start getting smaller as a result of improved social conditions

Stage 4 – birth rates level down to replacement levels
SECOND DEMOGRAPHIC TRANSITION

FIRST STAGE (1960-1970)
- Identifies the end of younger ages of marriage
- The baby boom of World War II ends
- Divorce starts to rise

SECOND STAGE (1970-1985)
- Common-law unions start to evolve
- Children are born in cohabiting relationships instead of marriage

THIRD STAGE (1985 onwards)
- Divorce reaches a high point
- Post-marital cohabitation increases - widowed persons do not marry again but cohabitate
- A high proportion of people start having children after the age of 30
Processes resulting from the triggers of population growth and density........
MIGRATION

- Population movements across space
- In-migration and out-migration
- Daily or seasonal movements – commuting; work; travel
- Forced – famine; war; poverty
- Voluntary – search for better jobs; education
The processes of migration triggers:

- **Urbanisation**
  - A large proportion of the population lives in towns and cities – people migrate from the rural to the urban.

- **Suburbanisation**
  - People migrate in the outer district within the commuting zone of the urban area.

- **Counterurbanisation**
  - People move away from large urban settlements – migration from urban to rural.
MALTESE POPULATION GROWTH AND DENSITY IN THE 20TH CENTURY
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Factors acting as measures on the quality of life index in the Maltese Islands

- **POPULATION GROWTH AND DENSITY**
  - 14 censuses from 1842-2005
  - Population in 1842 – 114,499
  - Population in 2005 – 404,962
    - Doubled 3.5 times in 163 years

- **MEASURING THE QUALITY OF LIFE INDEX**
  - Health – improved health facilities leading to a low infant mortality rate, life longevity
  - Education – high literacy rate, lifelong learning, higher percentage of a graduated workforce, high percentage of women working
  - Housing – rise in persons owing their own personal dwellings, increase in dwellings due a large number of persons living independently - second demographic transition: rise in separation leads to an increase in single households
  - Economic activity – shift from the primary and secondary sectors to the tertiary and quaternary sectors


Ogden, P., (1984) Migration and Urban Growth in *Migration and Geographical Change* (Chapter 4 pg 51); University Press, Cambridge, Great Britain

Pacione, M., (2001) Urban Geography from local to global in *Urban Geography ; 2nd ed.* (Chapter 1 pgs4-5); Bell & Bain Ltd, Glasgow Great Britain


INTERNET SOURCES


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