Geography: IGCSE – Case Studies

Case Studies (1.1):

A country which is over-populated:

Bangladesh:

- Sovereign country in South Asia (Indian subcontinent).
- World's eighth most populous country.

Demographics:

- Population: around 162.6 million.
- Land Area: around 130,200 km^2
- Population Density: 1252 per km^2
  - High population density of more than 1000 people per square kilometer.
- Net migration: (negative) -1.57 per 1000.
- Birth Rate: high birth rate of nearly 23 per 1000.
- Death Rate: high death rate of 5.7 per 1000
- Population Growth Rate: 1.6%

Resources:

- Has few natural resources and relies on farming.
  - Of the 73.8 million labour force 45% work in agriculture – mainly subsistence farmers.
- Country has far more people than its resources can support.
- GDP of $1700 per person – too low to provide a good standard of living.
- Estimated 48% of the population are literate, and education is provided for only 8 years of a person's life.

Causes:

- Religion:
  - Muslims make up 85% of the population.
  - Some leaders do not advocate the use of contraception.
- Economy:
  - Many people lack the money to purchase contraception.
  - Some people have many children to help the family economy.
- Education:
  - Many lack the education about contraception and do not use it therefore.
- Infant Mortality Rate:
  - High infant mortality rate (5.07%) – people may have more children to ensure the survival of few.
  - Access to health care poor.
- Money:
  - Government money goes to repairing damage to infrastructure after flooding – frequent drain on economy.

Effects:

- The capital, Dhaka, is heavily congested with traffic and has overcrowded housing – often lacking basic amenities.
- Low living standards, poor healthcare.

A country which is under-populated:

Australia:

- Population: around 24.3 million.
- Labour force: around 11.6 million.
- Land Area: 7,596,666 km^2
- Population Density: 3 per km^2
    - Large proportion of country is desert or semi-desert – little suitable land for an increase in settlements.
- Population Increase:
    - Low birth rate, low death rate – 1.15% increase a year.

Resources:

- Rich in resources.
- Large reserves of iron ore, coal, gold, copper, natural gas, and uranium.
- Great potential for solar and wind power development.
- Quantities of many Australian resources are greater than the country's needs, any surpluses are exported.

GDP:

- GDP per person was $41,300 in 2010..
- Service sector employs 75% of Australians.
- Unemployment rate is low.

Net Migration:

- Has to attract migrant workers to exploit its many resources.
- Positive net migration rate of over 6 per 1000 is the 14th highest in the world.

Causes:

- High education standards:
    - 99% of Australia's are literate.
    - Education is available for 21 years of a person's life.
- Healthcare:
    - Good healthcare – people do not need several children to ensure the survival of few.
    - Low infant mortality rate – only 0.46%.
- Family Planning:
    - Many families settle with only 1-4 children.
- Women & Careers:
    - More women look to make their own career and a life for themselves before they settle down with children.

A country with a high rate of natural population growth:

Niger;

- A landlocked country in Western Africa.
- Niger covers a land area of almost 1,270,000 km^2 - making it the largest country in West Africa, with over 80% of its land area covered by the Sahara Desert.

Demographics:

- 2011: the population of Niger was 15,730,754.
    - Expanding from a population of 1.7 million in 1960, Niger's population has rapidly increased with a current growth rate of 3.3% (7.1 children per mother).
- This growth rate is one of the highest in the world and is a source of concern for the government and international agencies.

    - The Flood Action Plan is funded by the world bank. It funds projects to monitor flood levels and construct flood banks/artificial *levees*.
- More sustainable ways of reducing the flooding include building coastal flood shelters on stilts and early-warning systems.

Case Studies (2.3):

The opportunities presented by an area of coastline, the hazards associated with it and their management.:

Background:

- The Holderness coast is in the north east of England.
- This is one of the most vulnerable coastlines in the world and it **retreats** at a rate of one to two metres every year.

The problem is caused by:

- Strong prevailing winds creating **longshore drift** that moves material south along the coastline.
- The cliffs are made of a soft boulder clay. It will therefore **erode** quickly, especially when saturated.

Management:

- The village of Mappleton, perched on a cliff top on the Holderness coast, has approximately 50 properties.
- Due to the erosion of the cliffs, the village is under threat.
- In 1991, the decision was taken to **protect** Mappleton.
- Management:
    - A coastal management scheme costing £2 million was introduced involving two types of hard engineering - placing rock armour along the base of the cliff and building two rock groynes.
- Mappleton and the cliffs are no longer at great risk from erosion.
- The rock groynes have **stopped** beach material being moved south from Mappleton along the coast. However, this has **increased** erosion **south** of Mappleton. **Benefits** in one area might have a **negative** effect on another.

Case Studies (2.5):

An area of tropical rainforest:

Congo Rainforest;

- On the African continent, located around the west coast and center regions.
- Covers a vast area of 1,800,000 km^2 - which ranges across Central Africa, Cameroon, Democratic Republic of Congo, and the Republic of Congo.
- Around 66% of rainforest found in the Democratic Republic of Congo – in which 57% of the land is made up from the tropical rainforest.
- World's second largest rainforest – accounts for 18% of the remaining rainforests in the world.
- 66% of population in the Democratic Republic of Congo also look to the rainforest for basic supplies, such as: food, shelter, and medicine.

Ecosystem:

- 600 tree species.
    - Tree trunks and vegetation in the area hold around 39 billion tonnes of carbon.
- 10,000 animal species.