The topics covered in the Core Section of the course

**Paper 1 (1 hour 30 minutes)**

Syllabus content: Core theme

Assessment objectives 1–4

Section A: Students answer **all** short‑answer questions. Some include data. (45 marks)

Section B: Students answer **one** extended response question. (15 marks)

Section A and section B are common to both SL and HL assessment.

(60 marks)

Watch the video Home

1. Populations in transition
2. **Population change**

**Explain population trends and patterns in births (Crude Birth Rate), natural increase and mortality (Crude Death Rate, infant and child mortality rates), fertility and life expectancy in contrasting regions of the world.**

You need to be able to describe and explain the changes on the **demographic transition model**. Why does death rate decline, why does birth rate decline, why does BR decline later than DR? (in stage 3). What happens to natural increase? This is all to do with the demographic (population) changes that take place as a country develops from pre industrial phase, to industrial, to post industrial phase. Obviously there will be patterns in the life expectancy, the infant mortality etc which will broadly relate to the patterns of development around the world.

**Analyse population pyramids.**

Population pyramids show age and sex structure. They have different shapes dependent on the stage of the demographic trans model that the pop is in. For example a pyramid shape is stage one – lots of children (high birth rate) and few older people (high death rate). You should be able to look at the shape of a pop pyramid and be able to know the birth and death rate and therefore the level of development of the country.

**Explain population momentum and its impact on population projections.**

This is to do with the fact that despite a lowering of the birth rate (perhaps below the death rate or below replacement level) there will not be a change in pop growth for some time e.g. China. Find out examples of countries and their future pop. projections and reasons for them.

1. **Responses to high and low fertility**

**Explain dependency and ageing ratios**.

As a country develops the proportion of young people and old people to the working population changes.

Find out how dependency ratios are calculated.

 **Examine the impacts of youthful and ageing populations**.

Find out more detail about how a country suffers due to both of the above. LEDC’s have lots of young and therefore needs to spend on maternity care, schools, vaccines etc. for children.

Some of the most developed MEDC’s e.g. Germany, UK now have ageing populations and need to spend on hospital care, palliative care, pensions, home services etc.

**Evaluate examples of a pro‑natalist policy and an anti‑natalist policy.**

You need to give the good and the bad sides to an example of each of the above. Probably best to do 2 very short tables.

1. **Migration**

**Discuss the causes of migrations, both forced and voluntary.**

You need to know the causes of migration – do a table – e.g. economic, war, political problems and instability etc. You need examples of each e.g. voluntary economic migration of Mexicans to USA. What are the push and pull factors involved in different types of migration? What are the Ravenstein and Lee models of migration?

**Evaluate internal (national) and international migrations in terms of their geographic (socio‑economic, political and environmental) impacts at their origins and destinations**

This is to do with the S.E.E.P. impacts that migration has on the source country and host country. Again some of the impacts will be positive but some will be negative. You will need to know some details of a few different examples e.g. MEDC like Polish migrations to UK over the last few years, and LEDC/MEDC e.g. Mexicans to USA or Indians to Qatar etc.

1. **Gender and change**

**Examine gender inequalities in culture, status, education, birth ratios, health, employment, empowerment, life expectancy, family size, migration, legal rights and land tenure.**

Basically there seems to be a trend where gender inequalities become less obvious as a country develops. There are more equality laws in MEDC’s than LEDC’s. Also though there are inequalities in the number of males who migrate compared to the females, birth ratios are unequal now in places like China (far more boys due to one child policy). Find out examples of gender inequality for each of the above – culture, status, education etc.

2. Disparities in wealth and development

1. **Measurements of regional and global disparities**

**Define indices of infant mortality, education, nutrition, income, marginalization and Human Development Index (HDI).**

Find out how development can be measured. Basically there are lots of indices (measurement scales) or indicators of development besides GDP or GNP per capita (wealth). You need to be able to define each of the above and also understand why the HDI is now often used as an indicator in preference to just GDP. Think of Qatar.

**Explain the value of the indices in measuring disparities across the globe.**

Evaluate the advans and disadvans of using the different indices – what they do and don’t reveal about the level of development within a country – for example how good an indicator of development is overall literacy rate? If a country has improved its education of young people greatly in the last 5 years will this show up much on the overall literacy rate? So find out about the time lag problem disguising trends, the problem of average figures disguising real differences within a country etc.

1. **Origin of disparities**

**Explain disparities and inequities that occur within countries resulting from ethnicity, residence, parental education, income, employment (formal and informal) and land ownership.**

You need to have some specific examples and knowledge of the above disparities e.g. Qatar – the big disparities between Qatari people and the migrants from LEDC’s – what are the reasons for these? Why are there such disparities between rural and urban areas of many countries in education, employment type, pay, housing conditions and so on. What are the traditions in some countries that perpetuate the differences in inequality between ethnic groups and genders?

1. **Disparities and change**

**Identify and explain the changing patterns and trends of regional and global disparities of life expectancy, education and income.**

There are parts of the world that are getting much more developed and have rapidly increasing incomes – (largely Western Europe, N. America, and increasingly the ‘Tiger Economies’ of S.E. Asia (Taiwan, S. Korea, Thailand etc) and the NIC’s. But which continent seems to be falling back so that an increasingly large wealth gap is opening up between the MEDC’s and the LLEDC’s Least Less Economically Developed Countries? Also remember that there are large disparities in income etc between people in LEDC’s especially. The rural areas tend to be very poor where many people survive through subsistence farming or work on farms for very low wages producing cash crops such as coffee or cocoa. There are higher levels of the above in urban areas in LEDC’s. Also there is a huge difference in wages of people in low skilled jobs and people who own businesses.

What are Gini coefficients – what does the one for education show?

**Examine the progress made in meeting the Millennium Development Goals (MDGs) in poverty reduction, education and health.**

There are eight development goals agreed by 190 countries in 2000. Find out what the goals are and then see if you can check on the progress that LEDC’s are making or certain countries are making by looking at a website such as [**www.mdgmonitor.org**](http://www.mdgmonitor.org)

1. **Reducing disparities**

**Discuss the different ways in which disparities can be reduced with an emphasis on trade and market access, debt relief, aid and remittances.**

One of the reasons that countries that are the LLEDC’s such as central Africa is their trade and market access problems. Many of them export low value primary goods that have dropped in price due to over-supply e.g. coffee. Market access problems occur in Africa because a lot of countries have such poor infrastructure such as poor roads, few or no railways, difficult access to ports and so on.

Find out how Fair Trade can help people in these countries. Many villages in LEDC’s have begun to depend on the money sent home by the migrant population who have left the village (remittances)

**Evaluate the effectiveness of strategies designed to reduce disparities.**

Make a few notes about when aid as a development strategy seems to be effective and when it isn’t. More recently some of the countries that became most heavily in debt during the 70’s through to the 2000’s have had their debts ‘forgiven’. Which countries had most debt? How did they get into debt? What effects were the debts having on their ability to develop?

3. Patterns in environmental quality and sustainability

 **1. Atmosphere and change**

*Basically, Global Warming appears to be happening. There is a lot of evidence to support this now – e.g. glacier retreat, temperature records etc. However, the theory that it is caused by human activity is not yet proven (although an increasing number of scientists – now almost all of them – believe it to be so). Most people believe that global warming is the result of our unsustainable lifestyles – the rapid industrialization of the world and a heavy reliance on fossil fuels to power that development (particularly oil).*

**Describe the functioning of the atmospheric system in terms of the energy balance between solar and longwave radiation.**

Summarise the heat budget

**Explain the changes in this balance due to external forcings (changes in solar radiation, changes in the albedo of the atmosphere and changes in the longwave radiation returned to space).**

What are Milankovitch cycles?

Why does the albedo of the Earth change – what might be the causes of Global warming?

How is global warming related to development and population growth?

Why will the return of longwave radiation become less?

**Discuss the causes and environmental consequences of global climate change.**

*Remember that Global Warming is not the same as climate change. There will be average global temperature increases (above 2C will start to cause major problems) but these will mask the more local or regional changes which could be a warming or cooling, the climates might get wetter or drier. This will be because of changes to ocean currents and jet streams and air currents. These transfer the heat from the equator to the poles and the cold from the poles towards the equator e.g. The North Atlantic Drift which warms up the western side of the UK in winter.*

List the main causes of climate change – human causes of increased GHG emissions

List the main consequences of climate changes (when global warming produces average global temp increases of +4C).

Why might GW cause widespread migrations?

*The two main ways of combating GW are* ***adaptation*** *and* ***mitigation*** *strategies*.

Explain the difference between these.

List a few of each.

1. **Soil and change**

**Explain the causes of soil degradation.**

*Very often human activities are harming the soil. Once again the damage can be related to development and population growth. Increasingly, marginal land is being forced into agricultural production that it isn’t suited for e.g. parts of the Sahel in Africa. Unsustainable farming practices (often the result of improvements to farming technology) that encourage the increase of yields (that can often only occur in the short term) also cause soil degradation.*

What is soil degradation?

How can wind erosion increase?

How can water erosion increase?

How can biological degradation occur?

How can the physical structure of the soil worsen?

How can chemical degradation occur?

How can desertification occur? Give example.

**Discuss the environmental and socio‑economic consequences of this process, together with management strategies.**

What are the socio-economic and environmental consequences of:

Desertification in somewhere like the Sahel

The acidification of soils in somewhere like Scandinavia

The wind erosion of somewhere like the ‘Dust Bowl’ of U.S.A. or E. Anglia in U.K.

The effects of water erosion in somewhere like the Alps in Europe or Himalaya in Asia.

Rain forest destruction in the. Somewhere like the Philippines

The over-use of farming chemicals in U.K.

The over-use of irrigation.

List the main management strategies and give an example of each - with a location.

1. **Water and change**

*Once again we are not using resources in a sustainable way. This time it’s water. Water use is increasing dramatically because of increasing development meaning more people have washing machines, wash cars, have swimming pools etc and more industrial output meaning factories are using more water and because of population increase.*

**Identify the ways in which water is utilized at the regional scale.**

List the main ways water is used

**Examine the environmental and human factors affecting patterns and trends in physical water scarcity and economic water scarcity.**

What is physical water scarcity and economic water scarcity? Look at your answers that describe the map on page 37 of the Revision Guide.

**Examine the factors affecting access to safe drinking water.**

*Obviously the level of wealth and development of a country affects its ability to provide clean water to a population e.g. many rural parts of African countries still have people collecting contaminated water from a nearby river. This takes a long time and also often gives the population diseases which are a major reason for the higher death rates, especially infant mortality rate. Urban areas of LEDC’s are usually better provided for.*

*However, climate and relief can also play a role. Wetter cooler climates provide more rain and therefore are more likely to have greater groundwater stores and more hilly relief provides natural basins for reservoirs and lakes.*

*Some very dry desert areas can even obtain clean water – from groundwater sources traditionally, but these days many rich Middle Eastern countries can use desalinated water.*

Why is water supply often more expensive in:

* drier areas
* flatter areas
* rural areas.
* LEDC’s?
1. **Biodiversity and change**

**Explain the concept and importance of biodiversity in tropical rainforests.**

What does biodiversity mean?

Give a fact that relates to the high biodiversity rain forests.

List reasons why rain forests are places of such great biodiversity

Give a few uses of plants etc. from rainforests.

**Examine the causes and consequences of reduced biodiversity in this biome.**

List the main reasons why rainforest is being removed.

List the main consequences of rainforest destruction.

4. Patterns in resource consumption

**1. Patterns of resource consumption**

**Evaluate the ecological footprint as a measure of the relationship between population size and resource consumption.**

Try to give a few advantages and a few disadvantages of using the ecological footprint to measure the lack of sustainability of our lifestyles around the world.

**Identify international variations in its size.**

Give a few examples of countries that have very large footprints and ones that have very small ones.

**Discuss the two opposing views (neo‑Malthusian and anti‑Malthusian) of the relationship between population size and resource consumption.**

List a few salient points for Malthus and a few for Boserup that show how these two people had very different ideas about the limits of population growth.

**2. Changing patterns of energy consumption**

**Examine the geopolitical and environmental impacts of these changes in patterns and trends.**

Which parts of the world is energy consumption increasing at the fastest rate? Name a few example countries.

Why is energy consumption increasing so quickly here?

What consequences do

**Examine the changing importance of other energy sources.**

Look at the alternatives – HEP, Nuclear, Solar, Wind power etc. You need to know what kinds of locations they require and what the advantages and disadvantages of each one are.

**3. Conservation strategies**

**Discuss the reduction of resource consumption by conservation, waste reduction, recycling and substitution.**

You need to know what each of the above is and need to know of schemes or strategies for each

**Evaluate a strategy at a local or national scale aimed at reducing the consumption of one resource.**

What are the advantages and disadvantages of a strategy. Could use the London congestion charging scheme.