6.6 Sustainable development and measuring development

Name: _____ Class: _____ Date: _____ **Total: 30 marks**

KEY WORDS sustainable development • Human Development Index • composite indicator • purchasing power parity • Gross National Income • Sustainable Development Goals

Objective

Build the skills to answer exam questions on **sustainable development** and on **measuring development**: the Sustainable Development Goals, single and composite indicators, and their limits.

You must be able to:

- define sustainable development and outline the Sustainable Development Goals (SDGs)
- explain the links between poverty, environment and sustainability
- compare single indicators (GDP or GNI per capita, health, education) with composite indicators
- explain the Human Development Index and other composite indicators
- explain why GNI and GDP per capita can differ, and how inequality-adjusted measures change rankings

1 Key knowledge and worked examples

■ Sustainable development and measuring development

Economic development is a broad rise in living standards: less poverty, better health and education, more freedom and choice. **Economic growth** (more real GDP) can help but is not the same thing.

Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987). The UN's **17 Sustainable Development Goals** (adopted 2015, target year 2030) include no poverty, zero hunger, good health, quality education, gender equality, clean water, affordable clean energy, decent work and climate action.

Poverty and the environment: poor households may over-use common resources (firewood, soil, fish) to survive; environmental damage (droughts, floods, polluted

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water) hits the poor hardest. So the two must be tackled together.

Single indicators

indicator	strength	limit
GDP or GNI per capita (PPP)	easy to compare; PPP adjusts for local prices	ignores distribution, unpaid work, the environment
life expectancy, infant mortality	show health	one dimension only
literacy, years of schooling	show education	quantity, not quality

Composite indicators

- **Human Development Index (HDI):** combines **health** (life expectancy at birth), **education** (mean and expected years of schooling) and **standard of living** (GNI per capita, PPP). Scale 0 to 1.
- **Inequality-adjusted HDI (IHDI):** lowers the HDI for unequal distribution in each dimension.
- **Gender Inequality Index (GII):** reproductive health, empowerment and labour-market gaps between women and men.
- **Multidimensional Poverty Index (MPI):** deprivations in health, education and living standards.
- **Happy Planet Index** and the **OECD Better Life Index** add well-being and sustainability.

A country can rank higher on GNI per capita than on the HDI (income not turned into health and education) or the other way round.

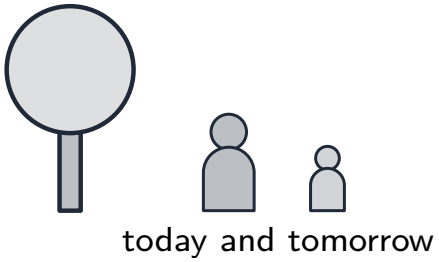
AHL: GNI = GDP + net income from abroad, so a country with much foreign-owned production (profits sent abroad) has GNI below GDP. When inequality is high, the IHDI falls well below the HDI and the country's ranking drops.

Answer shapes: define the measure → read the data → compare indicators → explain why rankings differ → judge which measure is more useful.

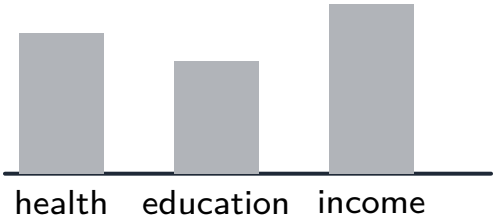
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2 Practice

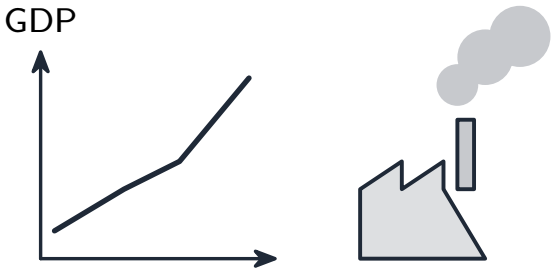
2.1 Define **sustainable development**. [2]



2.2 State the **three** dimensions measured by the Human Development Index. [2]

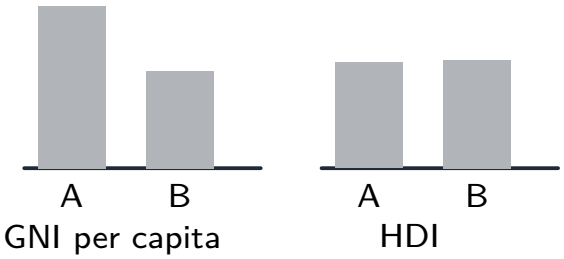


2.3 Explain **two** limitations of GDP per capita as a measure of development. [4]

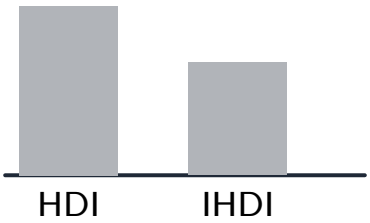


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2.4 Country A has GNI per capita (PPP) of $30,000 and an HDI of 0.78. Country B has GNI per capita of $18,000 and an HDI of 0.80. Explain **one** reason for this difference. [3]



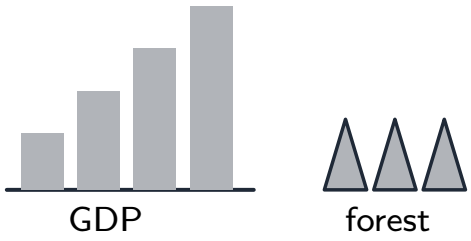
2.5 Explain why a country's inequality-adjusted HDI may be much lower than its HDI. [3]



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3 Exam-style questions

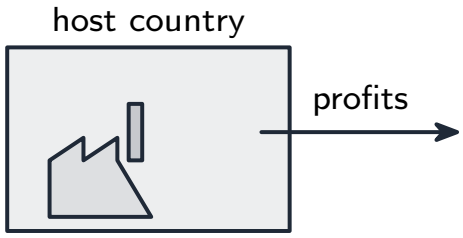
3.1 A country's GDP per capita has grown fast for 20 years, but forests have been cut down and rivers polluted.



Evaluate the view that economic growth always leads to sustainable development. [10]

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3.2 A small economy has GDP of \$50 bn and GNI of \$42 bn. Most of its mines and factories are foreign-owned.



Explain the difference between GDP and GNI here, and discuss which is the better measure of the living standards of residents. [6]

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Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

development that meets the needs of the present generation; without reducing the ability of future generations to meet their own needs

2.2

health (life expectancy), education (years of schooling), standard of living (GNI per capita, PPP): all three; any two

2.3

any two, explained: it is an average, so it hides how income is distributed; it ignores health, education and freedom; it leaves out unpaid and informal work; it counts output that harms the environment but not the loss of natural resources; without PPP, it ignores differences in prices

2.4

B has turned lower income into better health and education outcomes; e.g. more public spending on schools and health care / better access for all; A's income may be unequally shared, or depend on oil revenue that does not reach most people

2.5

the HDI uses national averages; the IHDI reduces each dimension by how unequally it is shared across people; so a country with large gaps in income, health or education between groups has an IHDI much lower than its HDI

3.1

award up to [10]: growth raises incomes and tax revenue; revenue can pay for schools, clinics, clean water and infrastructure; growth can reduce absolute poverty; but growth may not reach the poor if inequality is high; environmental damage: deforestation, pollution and climate change reduce what future generations can use; the poor are often hit hardest by environmental damage; development needs policies such as green investment, regulation and spending on health and education; judgement: growth can support but does not guarantee sustainable development

3.2

GNI = GDP + net income from abroad, so net income from abroad is −$8 bn; foreign owners send profits home, which count in GDP but not in GNI; GNI shows the income residents actually receive; so GNI is usually a better guide to residents' living standards; but both are averages that ignore distribution and the environment; judgement: use GNI per capita (PPP) together with composite measures such as the HDI