

9 Sustainability and human development

Unit	4	Health and human development in a global context
Area of Study	1	Health and wellbeing in a global context
Topic	9	Sustainability and human development
Subtopic	9.2	The economic dimension of sustainability

Summary



The dimensions of sustainability

- **Sustainability** is the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.
- The three dimensions of sustainability are:
 - economic sustainability
 - social sustainability
 - environmental sustainability.
- The three dimensions of sustainability are all important in promoting overall sustainability.

- **Economic sustainability:** ensuring that incomes in all countries are adequate to sustain a decent standard of living.
- *Impacts on health and wellbeing:* If governments promote economic growth and ensure that everyone has a decent income, people can then afford better food and health care.



The characteristics of economic sustainability



To answer questions online and to receive **immediate feedback** and **sample responses** for every question, go to your learnON title at www.jacplus.com.au.

Exam practice questions

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 1

What is the United Nations definition of sustainability?

1 mark

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 2

Read the following case study.

Malawi Seeds of Hope

The planting of trees as a renewable resource will benefit the people of Malawi in many ways. In the short term, new trees provide food and raw materials. Long-term benefits include storage, shade and enriched soil. For example, baobab leaves are consumed as a vegetable and can be harvested just one year after planting a seedling. Within five years, the trees begin to bear fruit, which can also be eaten or sold. The bark of the tree can be harvested for use as a strong, durable fibre to make twine, rope or other building materials. The bark grows back and can be harvested every two to five years.

In the subtropical climate of Malawi, the oxygen and water condensation released to the atmosphere by trees is critical for rain to protect the people and the land from drought and famine. Additionally, the tree's root systems help prevent soil degradation and erosion, while the trees themselves provide shade and protection to people and animals alike.

Explain how the concept of sustainability is reflected in the above case study.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 3

Greenhouse gases have been blamed for many of the climatic changes that the world is now experiencing. People are encouraged to reduce their greenhouse gas emissions by selecting cleaner power sources such as solar-powered electricity.

Explain how using solar electricity is an example of sustainability.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 4

Define 'sustainability'.

1 mark

Source: *VCAA 2013, Health and Human Development, Section A, Q9*

Question 5

How does the United Nations (UN) define 'sustainability'?

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 6

There are three dimensions of sustainability. They are

- A. economic, social and political sustainability.
- B. economic, political and environmental sustainability.
- C. environmental, political and social sustainability.
- D. economic, social and environmental sustainability.

1 mark

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 7

Economic sustainability refers to

1 mark

- A. the wellbeing of people by creating an equitable society in which the needs of all citizens are met.
- B. ensuring that the natural environment (forests, waterways, land) is utilised in a way that will preserve resources for the future.
- C. meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- D. ensuring that incomes in all countries are adequate to sustain a decent standard of living.

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 8

Which of the following is not a characteristic of economic sustainability?

1 mark

- A. gender equality
- B. trade
- C. employment
- D. innovation and diversity of industries

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 9

Using an example, explain how economic sustainability may impact on social sustainability.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 10

Identify a characteristic of economic sustainability and describe how it promotes health and wellbeing.

3 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 11

“In May 2015, more than 550,000 trees have been donated to villages in Malawi. The planting of trees as a renewable resource will benefit the people of Malawi in many ways. In the short-term, new trees provide food and raw materials. Long-term benefits include improved income production, storage, shade and enriched soil. For example, baobab leaves are consumed as a vegetable and can be harvested just one year after planting a seedling. Within five years, the trees begin to bear fruit, which can also be eaten or sold. The bark of the tree can be harvested for use as a strong, durable fiber to make twine, rope or other building materials. The bark grows back and can be reharvested devery two to five years. In the subtropical climate of Malawi, the oxygen and water condensation released to the atmosphere bytrees is critical for rain to protect the people and the land from drought and famine. Additionally, the trees’ root systems help prevent soil degradation and erosion, while the trees themselves provide shade and protection to people and animals alike.”

Source: https://www.nuskin.com/en_SE/culture/force_for_good/projects/seeds_of_hope.html

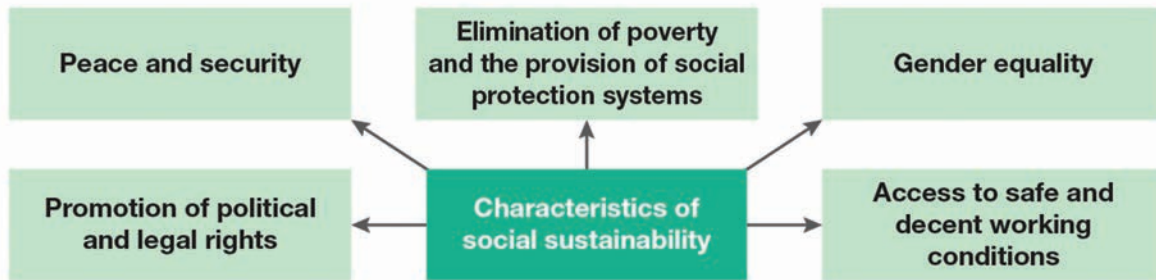
Identify an example of economic sustainability from the Seeds of Hope project and justify your choice.

2 marks

Unit	4	Health and human development in a global context
Area of Study	1	Health and wellbeing in a global context
Topic	9	Sustainability and human development
Subtopic	9.3	The social dimension of sustainability

Summary

- **Social sustainability** refers to improving the wellbeing of people by creating an equitable society in which the needs of all citizens are met.
- *Impacts on health and wellbeing:* If women and girls have equal access to education and employment, they will have greater participation and involvement in their community, improving their social health and wellbeing.



The characteristics of social sustainability

My notes



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Exam practice questions

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 1

Social sustainability refers to

1 mark

- A. the wellbeing of people by creating an equitable society in which the needs of all citizens are met.
- B. ensuring that the natural environment (forests, water ways, land) is utilised in a way that will preserve resources for the future.
- C. meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- D. ensuring that incomes in all countries are adequate to sustain a decent standard of living.

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 2

Which of the following is a characteristic of social sustainability?

1 mark

- A. access to safe and decent work conditions
- B. economic growth
- C. increasing employment and trade
- D. pollution and waste removal

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 3

Access to safe and decent work conditions is a characteristic of social sustainability. List two other characteristics of social sustainability.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 4

Identify a characteristic of social sustainability and describe how it promotes health and wellbeing. **3 marks**

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 5

A characteristic of social sustainability is the provision of social protection measures.

Outline two social protection measures.

2 marks

Unit	4	Health and human development in a global context
Area of Study	1	Health and wellbeing in a global context
Topic	9	Sustainability and human development
Subtopic	9.4	The environmental dimension of sustainability

Summary

- **Environmental sustainability:** ensuring that the natural environment is utilised in a way that will preserve resources for the future.
- *Impacts on health and wellbeing:* Using sustainable farming practices will ensure adequate food for families. This will reduce hunger as well as stress and anxiety levels.



The characteristics of environmental sustainability

My notes

Exam practice questions

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 1

Which of the following is an example of environmental sustainability?

1 mark

- A. peace and security
- B. biodiversity
- C. gender equality
- D. employment and trade

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 2

Biodiversity is a characteristic of environmental sustainability. Identify one other characteristic of environmental sustainability.

1 mark

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 3

Identify a characteristic of environmental sustainability and describe how it promotes health and wellbeing.

3 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 4

Seeds of Hope project

“In May 2015, more than 550,000 trees have been donated to villages in Malawi. The planting of trees as a renewable resource will benefit the people of Malawi in many ways. In the short-term, new trees provide food and raw materials. Long-term benefits include improved income production, storage, shade and enriched soil. For example, baobab leaves are consumed as a vegetable and can be harvested just one year after planting a seedling. Within five years, the trees begin to bear fruit, which can also be eaten or sold. The bark of the tree can be harvested for use as a strong, durable fiber to make twine, rope or other building materials. The bark grows back and can be reharvested every two to five years. In the subtropical climate of Malawi, the oxygen and water condensation released to the atmosphere by trees is critical for rain to protect the people and the land from drought and famine. Additionally, the trees’ root systems help prevent soil degradation and erosion, while the trees themselves provide shade and protection to people and animals alike.”

Source: https://www.nuskin.com/en_SE/culture/force_for_good/projects/seeds_of_hope.html

Identify an example of environmental sustainability from the Seeds of Hope project and justify your choice.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 5

Environmental sustainability refers to

1 mark

- A. the wellbeing of people by creating an equitable society in which the needs of all citizens are met.
- B. ensuring that the natural environment (forests, waterways, land) is utilised in a way that will preserve resources for the future.
- C. meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- D. ensuring that incomes in all countries are adequate to sustain a decent standard of living.

Unit	4	Health and human development in a global context
Area of Study	1	Health and wellbeing in a global context
Topic	9	Sustainability and human development
Subtopic	9.5	The concept of human development

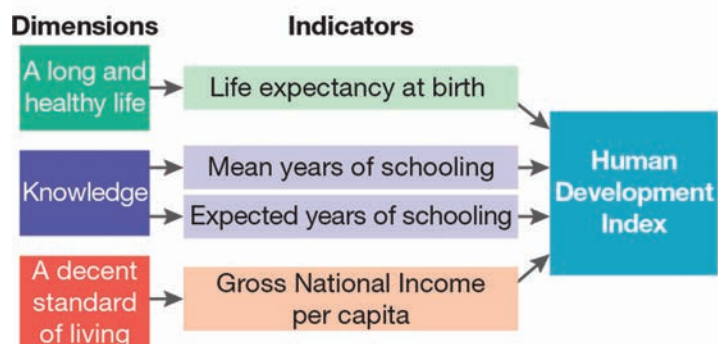
Summary



Access to knowledge through education is a key component of human development.

- **Human development** is about creating an environment in which people can:
 - ▶ develop to their full potential
 - ▶ lead productive, creative lives according to their needs and interests
 - ▶ expand their choices and enhance their capabilities (the range of things people can be and do)
 - ▶ have access to knowledge, health and a decent standard of living
 - ▶ participate in the life of their community and decisions affecting their lives.

- The **Human Development Index (HDI)** is a statistical tool developed by the United Nations to rank countries' levels of social and economic development.



The Human Development Index is based on three dimensions and four indicators.

HDI by country and ranking (2017)			
HDI classification	Country	Ranking	HDI
Very high	Australia	2	0.939
Low	Papua New Guinea	154	0.516

Source: <http://hdr.undp.org/en/countries>



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Past VCAA exam questions

Source: VCAA 2015, *Health and Human Development Exam*, Q9c

Question 1

Indicators of health status for a range of countries

Country	Human Development Index* (2013)	Life expectancy at birth* (2013)	Under-five mortality rate (per 1000 live births)* (2013)	Maternal mortality ratio (deaths per 100 000 live births)† (2013)	Births attended by skilled personnel (%)‡**
Australia	0.933	82.5	5	6	99.1
Turkey	0.759	75.3	14	20	91.3
Chad	0.372	51.2	150	980	16.6

Data *United Nations Development Programme, 'Human Development Reports';

†The World Bank, maternal mortality ratio data;

‡World Health Organization, 'Global Health Observatory Data Repository'

**Australia 2009, Turkey 2008, Chad 2010

Turkey's Human Development Index (HDI) increased from 0.496 to 0.759 between 1980 and 2013. In the same period, the average life expectancy rose by 16.6 years.

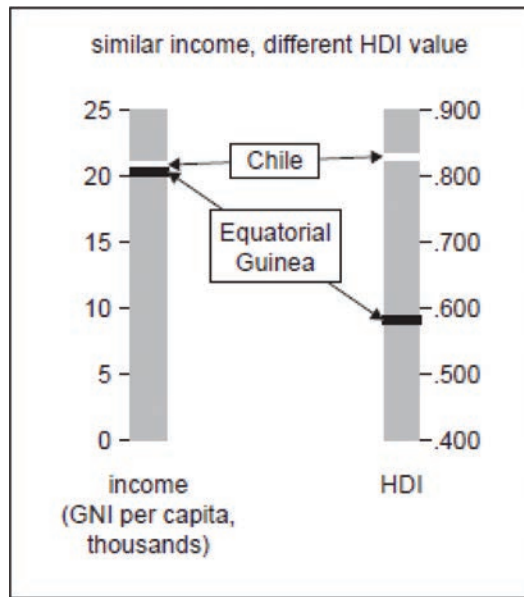
List three other HDI indicators that may have also increased.

3 marks

Source: VCAA 2016, *Health and Human Development Exam*, Q15a

Question 2

The following graph compares the income and Human Development Index (HDI) of Chile and Equatorial Guinea.



Source: United Nations Development Programme, *Human Development Report 2015: Work for Human Development*, UNDP, New York, 2015, p. 57

Explain how two countries can have a similar income (GNI per capita) but a quite different HDI. **2 marks**

Source: Adapted from VCAA 2011, *Health and Human Development Exam, Section A, Q1a*

Question 3

The table below shows the Human Development Index for five developed countries.

Country	Human Development Index
Australia	0.937
USA	0.902
United Kingdom	0.849
Sweden	0.885
Japan	0.884

Source: Human Development Index, United Nations. Accessed February 2011.

Define Human Development Index.

2 marks

Source: VCAA 2013, *Health and Human Development, Section A, Q5*

Question 4

Identify two indicators of the Human Development Index (HDI) and outline how they lead to variations in the HDI between Australia and a low-income country.

4 marks

Source: Adapted from VCAA 2014 Health & Human Development Exam, Q15a

Question 5

Consider the following data about the Human Development Index (HDI) and measles vaccination.

Country	Human Development Index (HDI) 2012	Measles Vaccination (% of one-year-olds) 2010
Australia	0.938	94
Trinidad and Tobago	0.760	92
Benin	0.436	69
Central African Republic	0.352	62

Data: *Human Development Report 2013*, United Nations Development Programme (UNDP), New York, 2013, pp. 144-146 (Table 1) and pp. 166-169 (Table 7)

Describe the HDI.

3 marks

Source: Adapted from VCAA 2014 Health & Human Development Exam, Q15b

Question 6

Consider the following data about the Human Development Index (HDI) and measles vaccination.

Country	Human Development Index (HDI) 2012	Measles Vaccination (% of one-year-olds) 2010
Australia	0.938	94
Trinidad and Tobago	0.760	92
Benin	0.436	69
Central African Republic	0.352	62

Data: *Human Development Report 2013*, United Nations Development Programme (UNDP), New York, 2013, pp. 144-146 (Table 1) and pp. 166-169 (Table 7)

Using the data provided, describe the relationship between measles vaccination rates and the HDI. **1 mark**

Exam practice questions

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 7

Identify three characteristics of the United Nations definition of human development.

3 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 8

Having access to knowledge is a key component of human development. Outline two ways in which a strategy focusing on education in a developing country can achieve human development.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 9

Having access to health care is a key component of human development. Describe how having access to health care enables human development to be achieved.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 10

Define 'human development'.

2 marks

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 11

Human development is about creating an environment in which **1 mark**

- A. people can develop to their full potential and lead productive, creative lives according to their needs and interests, and where people can expand their choices and enhance their capabilities.
- B. people have access to knowledge, health and a decent standard of living.
- C. people can participate in the life of their community and decisions affecting their lives.
- D. All of the above

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 12

Identify the three dimensions of the Human Development Index. **3 marks**

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 13

What is the purpose of the human development index? **1 mark**

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 14

Rwanda is a landlocked country in central Africa. In 1994, civil war broke out and over 800 000 people were killed. Almost three million Rwandans fled to neighbouring countries as refugees. Rwanda is ranked in the bottom 20 countries on the human development index (HDI).

Outline two reasons why Rwanda's human development index ranking is so low. **2 marks**

Source: Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question

Question 15
The human development index ranking of selected countries.

Table with 2 columns: Country, HDI rank. Rows include Australia (2), Papua New Guinea (154), Bangladesh (139), Vietnam (115), and Zimbabwe (154).

Describe two reasons why Australia’s HDI ranking of 2 is higher than one of the other countries shown in the table above. 4 marks

Lined writing area for the student's answer.

Unit	4	Health and human development in a global context
Area of Study	1	Health and wellbeing in a global context
Topic	9	Sustainability and human development
Subtopic	9.6	The advantages and limitations of the Human Development Index

Summary

Advantages of the HDI	Limitations of the HDI
<ul style="list-style-type: none"> • Enables a more accurate comparison between countries as it uses a single statistic to rank countries • Focuses on education, which helps measure access to knowledge and ability to expand choices and enhance capabilities • Focuses on more than just the economic growth of a country • Allows progress of countries to be mapped over time 	<ul style="list-style-type: none"> • Does not address all aspects of human development, such as gender equality • Based on averages and, as a result, does not indicate inequalities that may exist within a country • Data collection may not be reliable in some countries

My notes



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Exam practice questions

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 1

Which of the following is an advantage of the Human Development Index?

1 mark

- A. Progress of countries can be mapped over time.
- B. It addresses gender inequalities.
- C. It enables comparisons within a country.
- D. It focuses on discrimination and inequality.

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 2

Which of the following is a limitation of the Human Development Index (HDI)?

1 mark

- A. The HDI has a focus on education and health.
- B. The HDI enables comparisons between countries.
- C. Data collected may not be reliable in some countries.
- D. The HDI considers more than just income levels of a country.

Source: *Jacaranda (John Wiley & Sons Australia, Ltd), Practice VCE Question*

Question 3

The Human Development Index allows progress of countries can be mapped over time.

List two other advantages of the Human Development Index (HDI).

2 marks

Answers and marking guide

9.2 The economic dimension of sustainability

Question 1

Sustainability is when the needs of the present are met without compromising the ability of future generations to meet their own needs.

Question 2

Through planting trees, the current needs of people are being met as the trees provide a food source from nuts and fruits as well as improve soil quality for growing other crops for income.

The needs of future generations are also being met as, by planting trees, soil erosion is decreased enabling future generations access to viable farming land and a continued food supply.

Award 1 mark for showing how an example from the project meets the needs of people now.

Award 1 mark for showing how an example from the project meets the needs of future generations.

Question 3

Solar electricity allows people to meet their current needs and maintain their standard of living as it still enables people to function as they have without compromise.

As solar electricity is a clean power source with low impact on the environment, it is less likely to compromise the needs of future generations and their ability to maintain an acceptable standard of living.

Award 1 mark for explaining how solar energy meets the needs of current generation.

Award 1 mark for explaining how solar energy does not compromise the needs of future generations.

Question 4

Sustainability is meeting the needs of the present without compromising the needs of future generations.

Question 5

Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Award 1 mark for a definition linked to meeting the needs of the present.

Award 1 mark for a definition linked to meeting the needs of future generations.

VCAA Assessment Report note:

Many students were able to provide the United Nations (UN) definition of sustainability.

Question 6

Correct Answer is D

The three dimensions of sustainability are economic, social and environmental sustainability.

Question 7

Correct Answer is D

Economic sustainability refers to ensuring that incomes in all countries are adequate to sustain a decent standard of living.

Question 8

Correct Answer is A

Gender equality is a characteristic of social sustainability, not a characteristic of economic sustainability.

Question 9

Increasing trade, a characteristic of economic sustainability, can positively impact on social sustainability as through trade the gross national income of a country could increase. This, in turn, would mean that governments can use this increase in income to increase taxes, which can be used to provide social protection measures such as disability pensions and social housing — characteristics of social sustainability.

Award 1 mark for an example of economic sustainability.

Award 1 mark for how this example impacts on social sustainability.

Question 10

Employment — if governments can raise employment levels and decrease the level of unemployment, more people will have an income to enable a decent standard of living. This would help promote mental health and wellbeing, as being employed and able to support your family improves self-esteem and decreases anxiety levels.

Award 1 mark for identifying a characteristic of economic sustainability.

Award 1 mark for describing how the chosen characteristic promotes health and wellbeing.

Award 1 mark for linking to a specific dimension of health and wellbeing.

Question 11

An example of economic sustainability in the Seeds of Hope project would be that the fruit from trees can be harvested and sold and the bark can be made into rope and other building materials. Being able to make building materials from a renewable resource means that it can be income-producing in both the short and long term, allowing villages in Malawi to increase trade and employment.

Award 1 mark for identifying an economic sustainability example.

Award 1 mark for a suitable justification linked to the characteristics of economic sustainability.

9.3 The social dimension of sustainability

Question 1

Correct Answer is A

Social sustainability refers to the wellbeing of people by creating an equitable society in which the needs of all citizens are met.

Question 2

Correct Answer is A

Access to safe and decent work conditions is a characteristic of social sustainability.

Question 3

Characteristics of social sustainability include:

- gender equality
- promotion of political and legal rights
- peace and security
- provision of social protection policies.

Award 1 mark for each of two characteristics of social sustainability.

Question 4

Access to safe and decent work conditions — Access to safe and decent work conditions should see a reduction in child labour, which means that children should have the time to go to school and play. This promotes social health and wellbeing, as children can, through play and school, develop their communication and interaction skills.

Award 1 mark for identifying a characteristic of social sustainability.

Award 1 mark for describing how the chosen characteristic promotes health and wellbeing.

Award 1 mark for linking to a specific dimension of health and wellbeing.

Question 5

Social protection measures include:

- provision of pensions for people who are too ill to work
- subsidised health care and housing
- pensions and allowances for people who are unemployed.

Award 1 mark for each of two social protection measures.

9.4 The environmental dimension of sustainability

Question 1**Correct Answer is B**

Biodiversity is a characteristic of environmental sustainability.

Question 2

Characteristics of environmental sustainability include:

- use of natural resources
- pollution and waste removal
- climate change.

Award 1 mark for any of the above characteristics of environmental sustainability.

Question 3

Use of natural resources — ensuring crops planted are drought resistant will mean that crop yields will be less vulnerable to climate change and, if crops used are easily renewable, a continued food supply should occur. This can promote physical health and wellbeing as adequate food will ensure less hunger, improving immune system function.

Award 1 mark for identifying a characteristic of environmental sustainability.

Award 1 mark for describing how the chosen characteristic promotes health and wellbeing.

Award 1 mark for linking to a specific dimension of health and wellbeing.

Question 4

An example of environmental sustainability in the Seeds of Hope project would be the use of a natural resource (trees) which produce oxygen and water condensation needed for rain production. Also the tree roots can help prevent soil erosion and degradation. Preventing soil erosion and degradation and promoting rain will assist in improving biodiversity both now and in the future.

Award 1 mark for identifying an environmental sustainability example.

Award 1 mark for a suitable justification linked to the characteristics of environmental sustainability.

Question 5**Correct Answer is B**

Environmental sustainability refers to ensuring that the natural environment (forests, waterways, land) is utilised in a way that will preserve resources for the future.

9.5 The concept of human development

Question 1

- mean years of schooling
- expected years of schooling
- gross national income.

Award 1 mark for each HDI indicator identified.

Question 2

Gross national income (GNI) is only one indicator of the Human development Index. As Chile has a higher HDI than Equatorial Guinea it can be assumed that Chile has higher life expectancy and higher mean years and expected years of schooling.

Award 1 mark for identifying that GNI is only one aspect of the Human development Index (HDI).

Award 1 mark for identifying the HDI indicator of life expectancy, mean years and expected years of schooling.

VCAA Assessment Report note:

Responses to this question demonstrated that some students understood the components that make up the Human Development Index and were able to explain that GNI per capita is only one component of the human development index.

Question 3

Award 1 mark for stating the Human Development Index is 'a tool developed by the United Nations to measure and rank countries' levels of social and economic development'.

Award 1 mark for: 'it provides a single statistic based on three dimensions – a long and healthy life, knowledge and a decent standard of living – and four indicators – life expectancy at birth, mean years of schooling, expected years of schooling and Gross National Income per capita'.

Question 4

Responses could include:

- Life expectancy at birth - Australia has a high HDI, which would suggest that Australian's life expectancy is higher than that of people living in a low-income country and this would contribute to a lower HDI.
- Gross national income per capita (average income) - Australia has a high income per capita, meaning it has more money available to spend on healthcare services, leading to a high HDI compared with a low-income country with a low gross national income, contributing to a low HDI.
- Mean years of schooling - Australia has a high number of students completing more years of schooling compared with a low-income country. Education gives opportunity for employment and improved health, leading to a higher HDI for Australia.
- Expected years of schooling - Australia has compulsory attendance at school until the age of 16 years. A low-income country may have children completing primary schooling, but not compulsory attendance at school, and fewer children go on to complete their secondary education.

Award 1 mark for identifying each of two indicators of the HDI.

Award 1 mark for outlining how each of the two indicators leads to differences between Australia and a low-income country.

VCAA Assessment Report note:

Students should note that only the current indicators were relevant to this question, and they needed to show the relationship between the indicators selected and variations to the HDI, which many students failed to do.

Question 5

The Human Development Index is a tool developed by the United Nations to rank countries' levels of social and economic development. It provides a single statistic based on three dimensions — health, education and living standards — and has four indicators: life expectancy at birth, mean years of schooling, expected years of schooling and gross national income per capita.

Award 1 mark for recognising that it is a tool developed by the United Nations to rank countries' social and economic development.

Award 1 mark for recognising that it is a single statistic based on three dimensions: health, living standards and education.

Award 1 mark for recognising that it has four indicators: life expectancy at birth, mean years of schooling, expected years of schooling and gross national income per capita.

VCAA Assessment Report note:

This question required students to describe the Human Development Index (HDI). While most students were able to provide some detail, a relevant and detailed description of this measurement of health status was needed to gain full marks.

Question 6

Measles vaccination rates increase with the increase in HDI rankings. Australia has the highest HDI (.938) and the highest measles vaccination rate (94% of one-year-olds), whereas Central African Republic has the lowest HDI (.352) of countries listed and the lowest vaccination rate (62% of one-year-olds).

Award 1 mark for using data to provide a valid relationship between measles vaccination rates and HDI.

Question 7

Award 1 mark for each of three characteristics from the following.

- Human development is about expanding people's choices.
- It allows people to develop to their full potential and lead productive, creative lives in accordance with their needs and interests.
- It recognises the need for access to knowledge, health and a decent standard of living.
- It enables people to participate in their communities and have a say in decisions that affect their lives.

Question 8

A strategy that focuses on education, particularly for women, would help achieve human development. If women are educated on how to prevent disease and illness, their families are more likely to be well, enabling them to participate more fully in their communities.

Through the provision of education, employment prospects improve, which will enable people to expand their choices and have say in the decisions that affect their lives.

Award 1 mark for each of two links showing how education achieves human development.

Question 9

Access to health care in the form of immunisations allows people to be free from illness and diseases that can be life threatening.

Freedom from illness and disease allows greater opportunities to gain an education and employment, which increases people's choices to be creative and productive.

Award 1 mark for an example of health care.

Award 1 mark for how this example enables achievement of human development.

Question 10

Human development is creating an environment in which people can develop to their full potential and lead productive and creative lives in accordance with their needs and interest. **[1 mark]**

Human development is about expanding people's choices and capabilities, having access to knowledge, health and a decent standard of living and where people can participate in the life of their community and decisions affecting their lives. **[1 mark]**

Question 11

Correct Answer is D

Human development is about creating an environment in which:

- people can develop to their full potential and lead productive, creative lives according to their needs and interests, and where people can expand their choices and enhance their capabilities
- people have access to knowledge, health and a decent standard of living
- people can participate in the life of their community and decisions affecting their lives.

Question 12

Award 1 mark for each appropriate dimension.

Dimensions include:

- a long and healthy life
- knowledge
- a decent standard of living.

Question 13

The human development index ranks countries on a series of measures so that fair comparisons between countries can be made.

Question 14

Possible reasons could include:

- Conflict causes loss of life, and life expectancy at birth is one of the indicators used to calculate HDI.
- Conflict interrupts a country's ability to produce goods and services, which has an impact on income production. Gross national income is one of the measures used to calculate HDI.
- Conflict disrupts education services; therefore, children may not have access to schools. Mean years of schooling and expected years of schooling are both measures used to calculate HDI.

Award 1 mark for each of two valid reasons.

Question 15

- Australia has an excellent health care system that contributes to an increase in life expectancy. Many people in Papua New Guinea have poor access to health care, especially in rural and remote areas, which contributes to lower life expectancy and therefore a higher HDI rank.
- The Australian government provides subsidised education, and has made attendance at school compulsory for all children. In Papua New Guinea, many children may not be able to attend school due to distance or lack of financial means to attend. This would contribute to a lower HDI ranking than that of Australia.

For each of two reasons:

- award 1 mark for a comparison between Australia and another country listed
- award 1 mark for linking the comparison to an indicator of the Human Development Index.

9.6 The advantages and limitations of the Human Development Index

Question 1

Correct Answer is A

An advantage of the Human Development Index is that progress of countries can be mapped over time.

Question 2

Correct Answer is C

The fact that data collected may not be reliable in some countries is a limitation of the Human Development Index.

Question 3

Advantages of the Human Development Index (HDI) include:

- It enables a more accurate comparison between countries as it uses a single statistic to rank countries.
- It has an education focus, which helps measure access to knowledge and ability to expand choices and enhance capabilities.
- It focuses on more than just the economic growth of a country.

Award 1 mark for each of two valid advantages.

Question 4

Limitations of the Human Development Index (HDI) include:

- HDI does not address all aspects of human development such as gender equality.
- HDI is based on averages and as a result does not indicate inequalities that may exist within a country.

Award 1 mark for a valid limitation.

Question 5

An advantage of using the HDI is that it enables an accurate comparison of human development over time. For example by using a single statistic to calculate the HDI, changes in the human development of a country such as China are quickly identified; in this case, it can be seen that China's human development measured by the HDI has improved from .500 in 1990 to .738 in 2016.

A limitation of using the HDI is that, although the index has increased for China since 1990, some aspects of human development not measured by the HDI may not have improved. For example, the Human Development Index does not measure gender inequalities, therefore it cannot be assumed that because the HDI has increased, gender discrimination has also become less apparent in China.

Award 1 mark for a suitable advantage of the HDI.

Award 1 mark for an example to illustrate this advantage in relation to China.

Award 1 mark for a suitable limitation of the HDI.

Award 1 mark for an example to illustrate this limitation in relation to China.