SUSTAINABLE CITIES

Geography

MAIN THINGS THAT ARE TESTED

- What are cities? [Large population size, High population density, Built-up area, range of functions]
- What is the relationship between cities and rural areas? [Rural-urban migration, Provision of goods and services]
- How do cities affect their inhabitants and the environment? [Opportunities for people: Education and employment, Technological Innovation//Challenges people face: Increased environmental pollution, Competition for natural resources]
- How can cities be sustainably built and managed? [Environmental Management: Management of physical environment, Management of hazards//Improve Quality of Life: Providing safe housing, Providing a variety of transportation modes, Considering the needs of different groups]

1.1) WHAT ARE CITIES? [LARGE POPULATION SIZE]

(Use SDE)

State: One characteristic of cities is **large population size**.

Define: This refers to many people living and working in cities.

Example: For example, New Delhi in India has a population size of 38.9 million.

1.2) WHAT ARE CITIES (HIGH POPULATION DENSITY)

(Use SDE)

State: Another characteristic of cities is the **high population density**.

Define: This means that cities have a large population size living in the given area of land per square kilometer.

Example: For example, Shanghai, a city in China, has a population density of about 2,100 people per square kilometer.

1.3) WHAT ARE CITIES? (INFRASTRUCTURES)

(Use SDE)

State: Another characteristic of cities is **infrastructures / built-up areas.**

Define: This refers to the land surface that is mostly covered by buildings.

Example: For example, Bangkok in Thailand provides basic services such as water, electricity, sanitation, telecommunications and transport for its residents.

1.4) WHAT ARE CITIES? (RANGE OF FUNCTIONS)

(Use SDE)

State: The last characteristic of cities are the range of functions.

Define: This refers to cities serving a range of functions or activities, such as administrative functions and commercial and educational activities.

Example: For example, Jakarta in Indonesia provides different functions such as telecommunications, airport and industries.

2.1) RELATIONSHIP BETWEEN CITIES AND RURAL AREAS (RURAL-URBAN MIGRATION)

(Use SDE)

State: One relationship between cities and rural areas is the rural-urban migration.

Define: This refers to people living in cities that move over to the rural areas and vice versa.

Example: For example, the people move from rural to urban areas because they want more financial services, and the people move from urban to rural areas because they want peace and quiet.

2.2) RELATIONSHIP BETWEEN CITIES AND RURAL AREAS (PROVISION OF GOODS AND SERVICES)

(Use SDE)

State: Another relationship between cities and rural areas is the provision of goods and services.

Define: This refers to both rural and urban areas exchanging their food products for money.

Example: For example, urban areas rely on rural areas for much of their food supply since they have limited space for agricultural activities. (Rural farmers can rear animals and grow crops for their own needs or sell them at markets in the cities)*

*Optional

3.1.1) AFFECTING INHABITANTS (OPPORTUNITES FOR PEOPLE)

(Use SDE)

State: One way the cities affect their inhabitants positively is by providing education and employment.

Define: Education enables people to gain knowledge and skills. With these, people can then apply what they have learnt when they gain employment, where they are engaged in paid work.

Example. For example, there are students at a vocational school in Ulm, Germany studying, which then they graduate into a university.

3.1.2) AFFECTING INHABITANTS (OPPORTUNITIES FOR PEOPLE)

(Use SDE)

State: Another way that cities affect their inhabitants positively is by providing technological innovation.

Define: This refers to the use of scientific knowledge to create new products or services.

Example:

1. For example, apart from trees, sheltered bus stops and covered walkways are installed to provide shade and shield from rain
2. For example, use of public transport, cycling and walking help to reduce heat production from the transport sector.

(Pick one)

3.2.1) AFFECTING INHABITANTS (CHALLENGES PEOPLE FACE)

(Use SDE)

State: Another way that the cities affect inhabitants is the increased environmental pollution.

Define: This refers to large amount of fossil fuels being consumed in the cities every day due to the high concentration of people, business and transport networks.

Example: For example, burning coal to create electricity pollutes the air. Industries and homes generate garbage and sewage that can pollute land and water.

3.2.2) AFFECTING INHABITANTS (CHALLENGE THAT PEOPLE FACE)

(Use SDE)

State: Another way cities affect inhabitants is competition for natural resources

Define: This refers to competition for natural resources such as land and water arises when there is high demand by cities for the limited amount of natural resources.

Example: For example, in Punggol East there are many different amenities spread around the land.

4.1.1) CITIES SUSTAINABILITY BUILT (ENVIRONMENTAL MANAGEMENT)

State: Another way cities can be sustainably built is by managing the physical environment.

Define: Management strategies to regulate the use of natural resources and minimizing the negative environmental impact from human activities are necessary for the cities to be sustainably built.

Example: For example, reducing water pollution through water treatment ponds. Kranji Reservoir is one of 17 reservoirs in Singapore and is located in an agricultural area, and it helps to treat rainwater.

4.1.2) CITIES SUSTAINABLY BUILT (HAZARD MANAGEMENT)

State: Another way cities can be sustainably built is the management of hazards.

Define: Hazards are events that have a negative impact on people, the physical and built environments and the economy. We must find ways to manage hazards in cities as hazards can turn into disasters, where they can cause damage to people and their properties.

Example: For example, we can prevent the threat of hazards by using better quality of building materials. Buildings need to be of good quality to withstand the threat of hazards.

4.2.1) CITIES SUSTAINABLY MANAGED (IMPROVE QUALITY OF LIFE)

State: Another way of sustainably managing cities is by providing safe housing.

Define: This refers to structures or buildings constructed to shelter people from weather elements such as extremely high or low temperatures and rain. They are also places for rest and social gatherings.

Example: For example, in Singapore at the current moment has the HDB housing that is surrounded by ameneties.

4.2.2) CITIES SUSTAINABLY MANAGED (IMPROVE QUALITY OF LIFE)

State: Another way of sustainably managing cities is by providing a variety of transportation modes.

Define: This refers to ways in which people and goods move from one location to another.

Example: For example, public transport that includes the public bus, Mass Rapid Transit (MRT), and different transportation modes in the air and on water.

4.2.3) CITIES SUSTAINABLY MANAGED (IMPROVE QUALITY OF LIFE)

State: Another way of sustainably managing cities is by considering the needs of different groups.

Define: This refers to cities designing needs according to different age groups in mind.

Example:

(1) For example, the government cleared routes of any obstacles and are at least 1.8 metres wide on pedestrian paths.

(2) For example, the government also built tactile warnings on the ground on the two sides of traffic crossings to aid the visually handicapped and elderly pedestrians.

THANK YOU GUYS!