Learning and Teaching Resource Package Related to the Geography of China Topic 8 Urbanisation (Senior Secondary Worksheet)

Theme: Urbanisation in our country

Pre-lesson task

1. Figure 8.1 shows some photos of urban and rural areas. Which photos belong to urban life? Which photos belong to rural life?

Figure 8.1 Examples of urban life and rural life



2. Gather more information about rural and urban life in our country. Imagine that you are living in a rural area. Do you intend to migrate to a city? Discuss the differences in life between these two areas and consider where you would prefer to live.

In-class learning and teaching

Learning objectives:

- To know how to calculate the rate of urbanisation
- To identify the challenges and opportunities arising from urbanisation
- To understand the distribution of city clusters in our country

Development 1: Rural-urban migration and urbanisation in our country

1. In recent decades, our country has experienced urbanisation, i.e. the increase in the percentage of urban population. In this part, we will study urbanisation in our country. Read Knowledge Box 8.1 and Table 8.1 and discuss the following questions.

Knowledge Box 8.1

Rural-urban migration is one of the primary driver of urbanisation. As people move from rural areas to urban centers to search for better opportunities and improved living conditions, the percentage of the urban population increases, leading to urbanisation.

In the mid-1990s, percentage of our country's urban permanent resident population exceeded 30%, entering a phase of rapid development. By 2020, the percentage of our country's urban permanent resident population had surpassed 50%, reaching 63.89% with an average annual growth rate of 1.39%. In recent years, the growth rate of new rural migrant workers has been gradually declining, indicating a slowdown in urbanisation. Our country is currently in the middle to later stages of rapid urbanisation, characterised by the following two main trends:

- On one hand, the driving force behind urbanisation remains strong in our country. The non-agricultural labour productivity is more than four times that of agriculture, and the disposable income per capita for urban residents is 2.5 times higher than that of rural residents. Moreover, there is still a significant gap in infrastructure and public services between urban and rural areas. These realities continue to attract rural migrants to urban areas, making rural-to-urban migration a prevalent trend.
- On the other hand, the pace of urbanisation in our country will gradually slow down. Following international patterns, urbanisation experiences a peak followed by a decline in the middle to later stages of urbanisation. Despite a rapid increase in the percentage of urban permanent resident population since 2011, the number of new rural migrant workers has decreased from over 10.55 million

to below 4 million. In 2018 and 2019, this number was around 2 million each year, with a significant negative growth in 2020 due to the pandemic, followed by a rebound in 2021. The scale of rural migrant workers and their accompanying family members entering cities - directly related to the urbanisation - has been decreasing steadily since 2018. Although there was a slight increase in numbers in 2021 compared to the previous year, the total number has decreased by about 6.14 million compared to 2019, representing a reduction of 3.5%, to around 169 million people. Future trends suggest a further reduction in rural migrant workers and their accompanying family members entering cities, leading to a gradual slowdown in the percentage of urban permanent resident population.

Reference: National Development and Reform commission,

https://www.ndrc.gov.cn/xwdt/ztzl/xxczhjs/ghzc/202207/t20220728 1332060.html

Table 8.1: Urban and Rural Population in our country

Census	Urban	Rural population	Total Population	Rate of
years	population	(10,000 people)	(10,000 people)	Urbanisation (%)
	(10,000 people)			
1953	7726	50534	58260	
1964	12710	56748	69458	
1982	21082	79736	100818	
1990	29971	83397	113368	
2000	45844	80739	126583	
2010	66557	67415	133972	
2020	90199	50979	141178	

Source: National Bureau of Statistics

(a) Calculate the rate of urbanisation in our country for different years using the following formula. Round off your answers to two decimal places.

Rate of Urbanisation =
$$\frac{\text{Urban population}}{\text{Total population}} \times 100\%$$

[Answers:

Census	Urban	Rural population	Total population	Rate of
years	population	(10,000 people)	(10,000 people)	Urbanisation (%)
	(10,000 people)			
1953	7726	50534	58260	13.26
1964	12710	56748	69458	18.30
1982	21082	79736	100818	20.91
1990	29971	83397	113368	26.44
2000	45844	80739	126583	36.22

2010	66557	67415	133972	49.68
2020	90199	50979	141178	63.89

]

(b) Based on the information in the Knowledge Box 8.1 and Table 8.1, describe and explain the changes in the level of urbanisation in our country over the past 70 years.

Description

[The data reflects a clear evolution in urbanisation in our country over the past 70 years, characterised by rapid urban population growth, increasing urbanisation, and a shift towards urban living. The government's policies and investments have been instrumental in driving this trend of urbanisation and shaping the urban landscape in our country.

Rapid urban population growth: The urban population in our country has experienced significant growth over the years. From 1953 to 2020, the urban population has increased from 77.26 million to 901.99 million, indicating a substantial rise in urban growth. A significant driver of this urban population expansion has been the considerable influx of rural-to-urban migrants. By 2020, the number of rural migrant workers in urban areas had reached approximately 200 million, further contributing to the rapid growth of urban populations in our country.

Shift in rural-urban population distribution: The data shows a clear trend of urban population growth outpacing rural population growth. This shift is evident in the decreasing rural population figures over the years, while urban population figures have consistently increased.

Increasing urbanisation: Urbanisation in our country has shown a steady increase over the decades. It has risen from 13.26% in 1953 to 63.89% in 2020, indicating a significant shift of people living in cities.

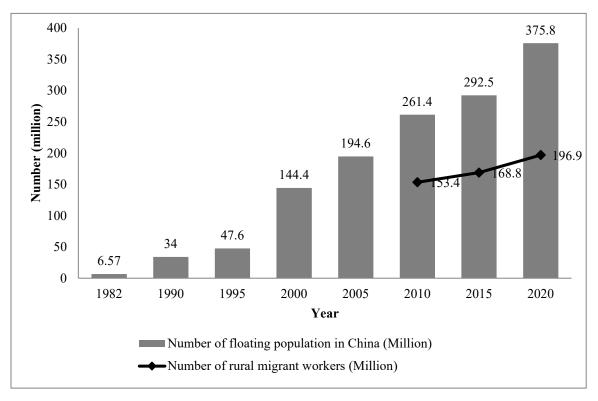
Explanation

Government policies: Government policies and reforms have played a crucial role in driving urbanisation in our country. Reforms such as the relaxation of the hukou system and urbanisation initiatives have facilitated the migration of rural populations to urban areas, contributing to the urbanisation.

Infrastructure development: The rapid urbanisation in our country has been accompanied by the construction of new cities, transportation networks, housing complexes, and commercial centers to accommodate the growing urban population.]

2. A significant driver of urban population growth and urbanisation has been the considerable influx of rural-to-urban migrants. Refer to Figure 8.1, Knowledge Box 8.2 and Figure 8.3, and discuss the following questions.

Figure 8.1 Number of floating population and rural migrant workers in our country from 1982 to 2020



Source: 1982 Census, 1990 Census, 1995's 1% population sample survey, 2000 Census, 2005's 1% population sample survey, 2010 Census, 2015's 1% population sample survey and 2020 Census.

^{*}Note: Floating population was defined as the people who have moved away from *hukou* location for at least one year in 1982 and 1990 Census, but the time duration has been shortened to half year since 1995.

Knowledge Box 8.2

For a long time, rural migrant workers have been an indispensable force for economic development and urban construction. They leave their rural hometowns not only because rural life is difficult to sustain but also to actively seek better development opportunities and integrate into urban life. Unlike the older generation, they are less likely to return to their rural hometowns for agricultural production; urbanisation is an inevitable fate for them.

Surveys indicate that, apart from wages, these workers are increasingly concerned about social welfare issues in cities. Among these concerns, 14.1% prioritise housing problems, and 7.5% focus on their children's education. These issues differ from traditional concerns, such as wages, labour contracts and working hours. Instead, they are closely linked to the integration of rural migrant workers and their families in the city.

Reference: https://k.sina.cn/article 5044281310 12ca99fde02000qlft.html

Figure 8.3 Interviews with rural migrant workers

Mr Ju	Mrs Wang	
Mr. Ju, a farmer from Shaanxi,	Mrs. Wang, a migrant worker	
started out as an ordinary	from Anhui, has been with	
migrant worker in 1987. To	Shanghai Enterprise for more	
support his parents and provide	than ten years. Prior to this, she	
his family of three children in	was a farmer and had to support	
their rural village, he worked at	her family, especially since her	
a railway company in the city.	parents were sick. Over the	
With his hard work, he has	years, she has progressed	
since become a senior	from a sewing worker to a	
technician of a company of the	manager in charge of the	
China Railway Electrification	production workshop,	
Bureau.	achieving a leap forward in career development.	
He is very concerned about the	It was difficult to find a suitable	
· ·	school for her children. the	
	school fees were unaffordable.	
	The medical expenses in	
9	Shanghai were also high.	
	Mr. Ju, a farmer from Shaanxi, started out as an ordinary migrant worker in 1987. To support his parents and provide his family of three children in their rural village, he worked at a railway company in the city. With his hard work, he has since become a senior technician of a company of the China Railway Electrification	

Resource: Ministry of Agriculture and Rural Affairs of People's Republic of China, 2012, http://www.moa.gov.cn/ztzl/nyfzhjsn/hyfzsn/201209/t20120905 2922296.htm

(a) Refer to Figure 8.1., describe the trend of floating population and rural migrant workers in our country. What is the implication of this trend?

[Hint:

Both the number of floating population and rural migrant workers are increasing from 2010 to 2020. It means that more rural residents are migrating to cities.]

(b) What are the push factors that compel rural residents to migrate to cities?

[Hint: Push factors that compel rural residents to migrate to cities include limited economic opportunities in rural areas, poor income from agricultural production, lack of access to quality healthcare and education, inadequate infrastructure, such as road and transportation,

and environmental challenges like droughts or floods. Additionally, changing social conditions and aspirations for a better quality of life often push rural residents towards urban areas in search of improved livelihoods and prospects.]

(c) What are the pull factors that attract rural residents to cities?

[Hint: Pull factors that attract rural residents to cities include better employment opportunities in urban centers, higher wages, access to improved healthcare and education facilities, enhanced infrastructure and public services, greater social mobility, exposure to diverse cultures and lifestyles, and the allure of urban amenities and conveniences. The promise of a higher standard of living, increased social connections, and better prospects for personal and professional growth act as magnets drawing rural residents towards urban areas.]

(d) What challenges do rural-urban migrants face in cities?

[Hint: Employment: Securing stable and well-paid jobs can be difficult for migrants due to competition, lack of skills, and discrimination.

Housing: Access to affordable and adequate housing is a major challenge, causing many migrants to live in overcrowded and substandard conditions.

Education for children: Rural-urban migrants often face challenges in accessing quality education for their children in urban areas. They may encounter barriers such as high school fees, limited school options, and cultural differences within the education system.

Family separation: Being away from their families in rural areas can lead to emotional stress and challenges in maintaining relationships.

Health and well-being: Migrants from rural areas may face challenges in accessing healthcare services in urban areas due to high costs, long waiting times, and unfamiliarity with the healthcare system. Migrants may experience more health issues due to poor living conditions, limited access to healthcare, and exposure to environmental hazards in urban environments.]

Development 2: City clusters in our country

Watch the audiobook titled "City" (https://emm.edcity.hk/media/1_y93sema2) to understand the concept of urbanisation and the characteristics of city clusters. Read Knowledge Box 8.3 and discuss the following questions.

Knowledge Box 8.3

City clusters in our country, such as the Beijing-Tianjin-Hebei city cluster (京津冀城市群), the Chang Jiang Delta city cluster (長三角城市群) and the Guangdong-Hong Kong-Macao Greater Bay Area (粤港澳大灣區), are characterised by high population densities and rapid urbanisation. These regions serve as major hubs, attracting migrants from rural areas and other parts of the country. This influx of population not only drives urbanisation but also fuels economic growth and development in these areas.

The "National New Urbanisation Plan"(《國家新型城鎮化規劃》) proposes that city

clusters should be the primary form to promote urbanisation, which fully aligns with the general trends of urbanisation in the context of globalisation and reflects the fundamental characteristics of our country's resource and environmental carrying capacity. City clusters drive economic efficiency through economies of scale and innovation, as seen in Shenzhen's tech hub and Shanghai's financial centre. Integrated transport networks, such as the high-speed rail connecting Guangzhou and Shenzhen, enhance connectivity and reduce costs. These agglomerations also offer diverse opportunities, attracting talent to cities like Hangzhou for its tech startups and cultural vibrancy. Globally, they boost competitiveness by integrating into global supply chains, as seen in the Zhujiang Delta's manufacturing exports. Thus, city clusters play a significant role in the process of urbanisation by driving economic growth, infrastructure development, and population migration.

The major city clusters in our country are distributed in areas where the physical environment is more suitable for settlement. The three major climatic zones and three major terrains form the basic pattern of our country's natural geographical environment, making land and water resources the dominant factors influencing the pattern of urbanisation in our country. In terms of land area, our country's plains account for only 12%, compared to 40% for the United States and 59% for Europe. Additionally, our country's per capita water resources are only 28% of the world's average, with a highly uneven distribution of water resources. Through comprehensive analysis, it is evident that regions like the monsoon plains in the eastern and central parts of our country, river valleys, basins, and piedmont alluvial plains in the central and western regions are more suitable for urban development in terms of resource availability and environmental carrying capacity.

Currently, our country has developed a linear concentration of population and cities along river valleys and coastlines, as well as cluster-based agglomerations around transportation hubs (see Figure 8.2), which objectively lay the foundation for our country to continue using city clusters as the primary form to promote urbanisation in the future.

Reference: National Development and Reform Commission https://www.ndrc.gov.cn/xwdt/gdzt/tjzgczh/yjjl/201403/t20140319 1201729.html

Major city cluster

Major city

Not including Hong Kong SAR, Macao SAR and Taiwan Province

1:105,000,000

Figure 8.2 Spatial distribution of city clusters in our country

Map reference: 中華人民共和國自然資源部審圖號 GS(2023)2767 號 (Date of reference: 25 March 2025)

1. How are the major city clusters distributed in our country?

[Hint: The major city clusters in our country are distributed in regions such as the plains in the eastern and central parts of our country, river valleys, basins, and piedmont alluvial plains in the central and western regions. These areas are more suitable for urban development in terms of resource and environmental carrying capacity. The

current city clusters are primarily located in these regions due to their suitable conditions for urban growth.]

2. What factors contribute to the formation and growth of city clusters in our country?

[Hint: Resource and environmental factors: The availability of resources such as land, water, and favourable environmental conditions play a crucial role in attracting urban development. Areas with suitable resources and environmental conditions are more likely to foster the growth of city clusters. According to the National Water Resources Carrying Capacity Assessment Report (2023), the water resources per unit area of the Chang Jiang Basin are 4.2 times that of the Huang He Basin, and this difference directly shapes the denser spatial pattern of the eastern city cluster.

Economic factors: Economic factors, such as access to markets, industrial support facilities, and employment opportunities, drive the formation and growth of city clusters in advantageous locations through the mechanism of increasing returns to scale. Taking the Chang Jiang Delta as an example, this region accounts for 18.4% of our country's GDP (2022 data) with 4.1% of the country's land area, vividly demonstrating how the spatial agglomeration of economic activities can give rise to a high level of city clusters.

Policy support: The government actively shapes the spatial structure of city clusters through urbanisation strategies, investment guidance, and regional development policies. For example, following the implementation of the Outline of the Beijing-Tianjin-Hebei Coordinated Development Plan, the proportion of research and development expenditure in the Beijing-Tianjin-Hebei region rose from 3.22% of regional GDP in 2013 to 4.27% in 2023, which is 1.62% higher than the national average. Such targeted policies effectively reduce transaction costs and generate benefits that contribute to the growth of city clusters.]

3. Based on Knowledge Box 8.3, what are the key advantages of city clusters in the context of our country's urbanisation strategy?

[Hint: The concept of city cluster is closely related to urbanisation in our country, as it reflects the spatial concentration of urban areas and their surrounding regions. A city cluster refers to a contiguous urban area formed by the expansion and integration of multiple cities and towns into a single functional unit. The advantages of city clusters include, but are not limited to, the following:

Economic growth: They drive urbanisation and economic development by attracting migrants and leveraging economies of scale, as shown by Shenzhen's tech hub and Shanghai's financial center. According to 2023 statistics, the Chang Jiang Delta city

cluster generates 24% of our country's GDP while occupying only 4% of its land area, highlighting the economic advantages of agglomeration.

Efficiency in intensive development of resources: They optimise land and water use, which is crucial given our country's limited plains (12% of the land) and low per capita water resources (28% of the global average). Development is concentrated in areas with a higher environmental carrying capacity. According to 2022 statistics, the water consumption per unit of GDP in the Zhujiang Delta city cluster is 34% lower than the national average,, demonstrating the advantages of intensive development.

Efficiency of integrated infrastructure: The efficient transportation networks, including the Guangzhou-Shenzhen-Hong Kong Express Rail Link, will facilitate the realisation of "one-hour living circle". By 2023, the rail transit density in our country's city clusters is expected to be 3.2 times higher than the national average, greatly reducing the transport cost.

Increasing global competitiveness: The Guangdong-Hong Kong-Macao Greater Bay Area is deeply integrated into the global industrial chain and accounts for 18.7% of the world's electronics exports, according to 2023 customs data. This integration enhances the key position of our country in the international division of labour.

Talent attraction: Cities such as Hangzhou rely on their digital economy and cultural vibrancy to attract high-quality populations. In 2023, Hangzhou achieved the highest net talent inflow rate in the country for the fifth consecutive year, forming a positive cycle of innovation.

Policy and institutional guarantees: "The National New Urbanisation Plan" regards city clusters as the main form of city development to drive urbanisation, and realises the optimal development of land space.

Conclusion: The city cluster model fits the better geographical environment characteristics of the east side of our country's east-west population dividing line ("Hu Huanyong Line") through six paths: economic agglomeration, resource optimization, facility connectivity, open cooperation, talent cultivation and institutional innovation. Also, it serves as the core strategy for implementing the regional coordinated development strategy.]

Post-lesson task

Write a case study report about one of the city clusters listed in Figure 8.2. You have to search and collect data about the selected city cluster and present your findings.

Your presentation should include five sections, namely an overview (e.g., geographical location, population, land area), historical background, leading cities, economic role, and future development challenges.

Prepare a 5-minute presentation or a report of 200–300 words, including maps or graphs for illustration.

[Example:

Case Study: The Chang Jiang Delta city cluster (長三角城市群)

Overview

The Chang Jiang Delta city cluster is located in the eastern part of our country, at the important intersection of East Asia and the western Pacific Ocean. It spans approximately 358,000 square kilometers and is home to over 165 million people (as of 2019), making it one of the most densely populated and economically dynamic regions in our country. The cluster includes the provinces of Jiangsu, Zhejiang, and Anhui, as well as the municipality of Shanghai. Its flat terrain, abundant water resources, and well-developed transportation networks make it a hub for trade, industry, and innovation. It accounts for about 17% of the population of our country and generates nearly a quarter of its total economic output.

Historical background

The Chang Jiang Delta has been a centre of economic and cultural activity for centuries, dating back to the ancient Silk Road. During the Ming and Qing dynasties, this region became a major hub for agriculture, handicrafts, and trade. In the 20th century, Shanghai emerged as a global financial centre, and the surrounding cities developed strong manufacturing bases. The region integrated into the global economy rapidly after our country's reform and opening-up policies in the late 1970s, transforming it into a powerhouse of industrial and technological development.

Leading cities

The cluster is anchored by Shanghai, the most populous city in our country and a global financial hub. Other key cities include:

- Suzhou: It Is known for its advanced manufacturing and high technology industries.
- Hangzhou: It is a center for e-commerce and innovation, home to tech giant companies such as Alibaba and rising AI companies such as DeepSeek.

- Nanjing: It is a historical and educational hub with a strong industrial base.
- Ningbo: It is a major port city and manufacturing centre.

Together, these cities form a highly interconnected urban network, driving regional growth.

Economic roles

The Chang Jiang Delta city cluster accounts for nearly 24.4% of our country's GDP in 2023, establishing it as one of the most economically significant regions in our country. It is a global leader in manufacturing, particularly in electronics, automotive, and textiles. The region also plays a critical role in innovation, with numerous tech parks, research institutions, and startups. Additionally, its ports, including Shanghai and Ningbo, handle a significant share of our country's international trade.

Future development challenges

Despite its success, the cluster faces several challenges:

- 1. **Global competitiveness**: Shanghai lags behind global cities like New York and Tokyo in terms of international influence, with only 10% of Fortune Global 500 companies headquartered there.
- 2. **Social inclusiveness**: Approximately 25 million migrants lack local hukou, limiting their access to public services such as education, healthcare, and housing.
- 3. **Environmental sustainability**: Rapid urbanisation and industrial growth have led to environmental issues, including air and water pollution.
- 4. **Regional integration**: While the cities are economically interconnected, further efforts are needed to streamline infrastructure and governance across provincial boundaries.

Summaries

The Chang Jiang Delta city cluster is a cornerstone of our country's urbanisation strategy and economic development. To maintain its global competitiveness, the region must address challenges related to global competitiveness, social inclusiveness, , environmental sustainability, and regional integration while leveraging its strengths in innovation and industry.

Reference:

National Development and Reform Commission, 2016,

Chang Jiang Delta city cluster Development Plan (長江三角洲城市群發展規劃) (In Chinese)

https://www.ndrc.gov.cn/xxgk/zcfb/ghwb/201606/W020190905497826154295.pdf;

Xue, Y., 2021, Chang Jiang Economic Belt City Cluster Development Report (2019-2020) (In Chinese),

https://cjjjd.ndrc.gov.cn/zhongshuochangjiang/xsyj/202101/t20210122_1265738.htm

Xinhua, 2024, How to build a world-class urban agglomeration? Come and see the Yangtze River Delta International "Dialogue" (In Chinese), https://www.gov.cn/yaowen/liebiao/202405/content-6951059.htm