

Learning and Teaching Resource Package Related to the Geography of China

Topic 2 Changing Population (Junior Secondary Worksheet)

Theme: Population Distribution

Pre-lesson task

In this lesson, we will study the major characteristics of population distribution in our country. Read the population density map and discuss the following questions.

Knowledge box 2.1

Population density refers to the measurement of the number of population in a given area, typically expressed as the number of population per unit of land area. It is a measure of how crowded or densely populated an area is. Population density is calculated by dividing the total population of a given area by its total land area. This index helps to understand the distribution of people within a specific geographic location.

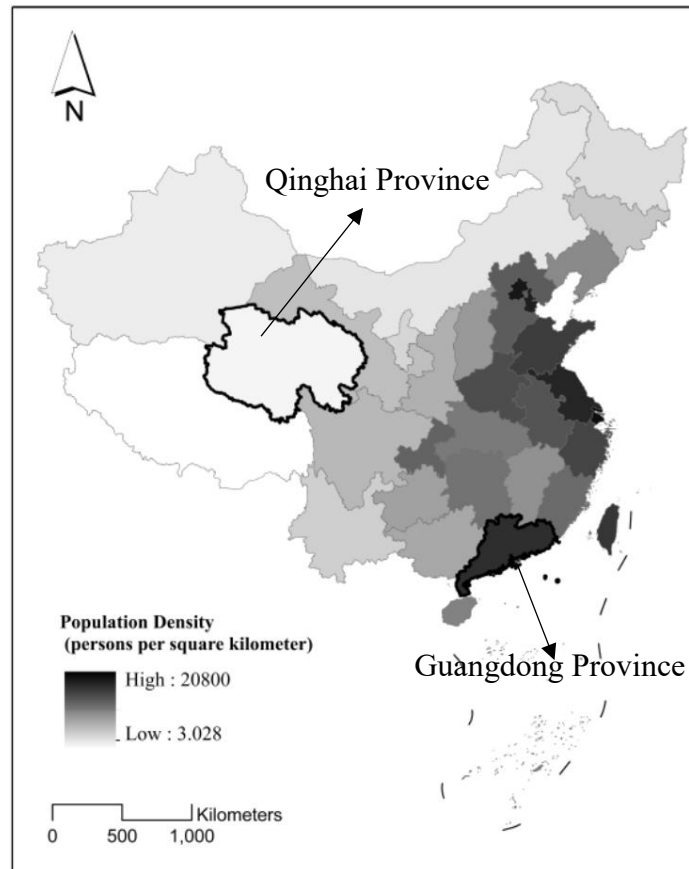
The formula for population density is:

$$\text{Population Density} = \text{Total Population} / \text{Total Land Area}$$

The unit of population density is typically expressed as persons per square kilometer (or square mile, depending on the country). For example, the population density of Hong Kong was 6740 per square kilometer in 2022. It means on average, there were approximately 6740 individuals living in each square kilometer of land in Hong Kong. This indicates a high population density, suggesting that Hong Kong is a densely populated area with a large number of people residing in a relatively small land area.

- (a) Refer to Figure 2.1, what are the spatial differences in population distribution in our country?

Figure 2.1 Population density of our country in 2020



Source: China Statistical Yearbook, 2020

Note: The population density of Guangdong Province and Qinghai Province in 2020 was 708 people per square kilometer and 8.5 people per square kilometer, respectively.

In-class learning and teaching

Learning objectives:

- To describe the general pattern of population distribution in our country.
- To explain the physical factors affecting population distribution in our country.
- To understand the importance of the population-related issues and acknowledge them as major challenges that our country needs to address.

Lesson 1: Characteristics of population distribution in our country

Watch Topic 2 Changing Population Video (Junior). Read the following excerpt of an article published in the People's Daily in 2015 and discuss the following questions.

Other relevant videos:

“View China from Clear Water and Green Mountains” The Hu Huan Yong Line (「綠水青山看中國」胡煥庸線), 0:00-0:54	https://tv.cctv.com/2017/10/11/VIDEcy4zpbMkWVoEcLN0yyH9171011.shtml (Chinese version only)
Learning and Teaching Series on "Geography of China" (Junior Secondary): Population, 0:00-5:25	https://emm.edcity.hk/media/1_7z5ii0gl

Knowledge box 2.2

“During his visit to the human habitat science research exhibition at the National Museum of China on November 27, 2014, (former) Premier Li Keqiang referred to the Hu Huanyong Line on the map. He highlighted that 94 percent of our country's population resides in the eastern 43 percent of the country's land*. However, he emphasised the need for urbanisation in the central and western regions as well. As a vast, multi-ethnic nation, we must investigate ways to challenge this trend. Moreover, we must pursue integrated planning and coordinated development, ensuring that the benefits of modernisation are accessible to people in the central and western regions of the country.”

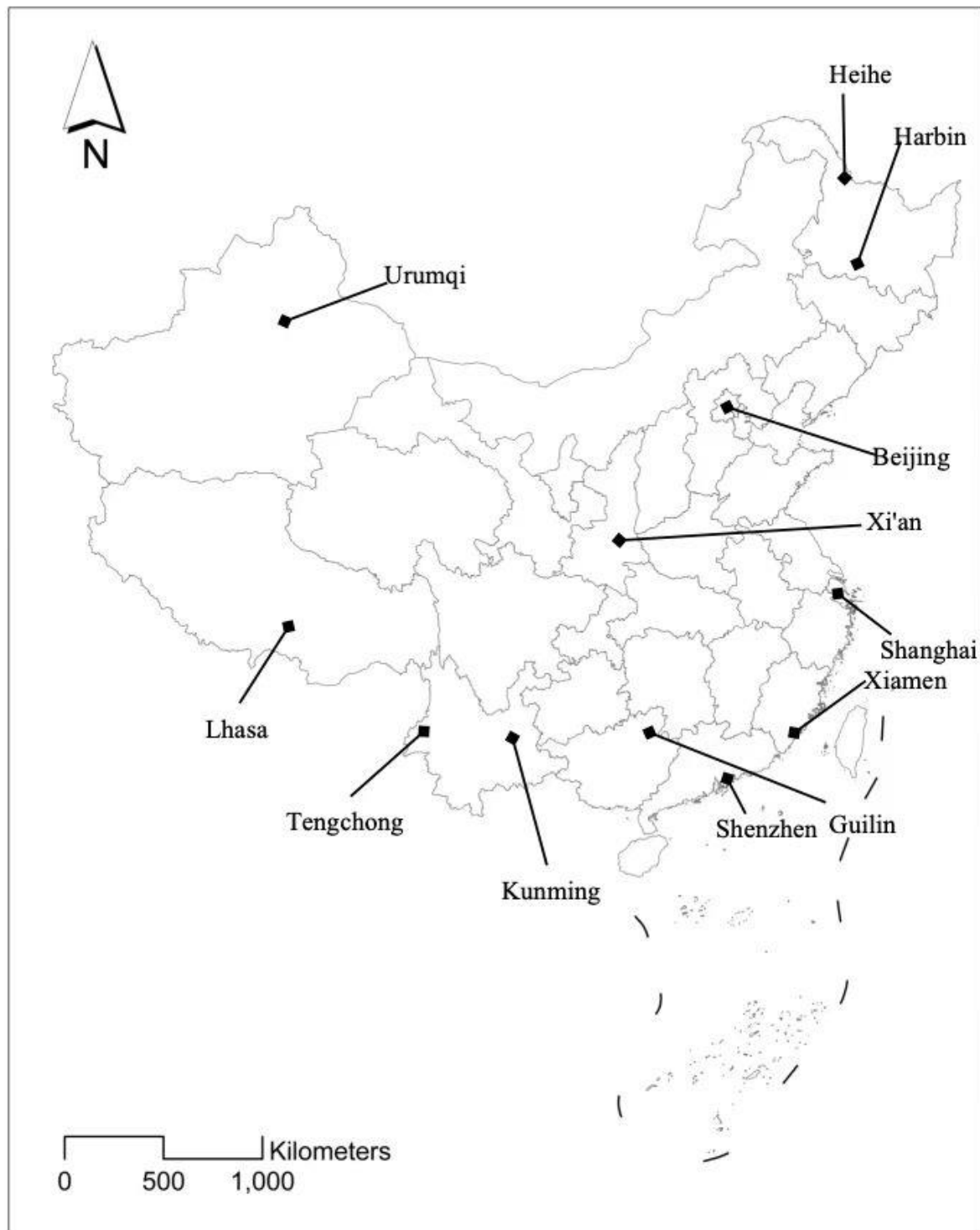
“On the map of China, a diagonal line runs at a 45-degree angle from the Heihe in Heilongjiang province to Tengchong in Yunnan Province. This line, proposed by geographer Hu Huanyong in 1935, serves as a demarcation line for our country's population density and is often referred to as the Hu Huanyong Line (or Hu Line). In the 1930s, the area southeast of this line was home to 96% of the population, despite only comprising 36% of the land*, while the northwest held just 4% of the population, yet accounted for 64% of the land. Remarkably, even after 80 years of urbanisation and numerous population shifts, this diagonal line's significance in terms of population distribution remains the same. Geographers from the Chinese Academy of Sciences discovered that, as per data from the fifth population census in 2000, the southeastern part of the line still housed 94.1 percent of the country's total population, while the northwestern part accounted for 5.9 percent.”

*The percentage of land area is different because the total land area is different in the 1930s and at present.

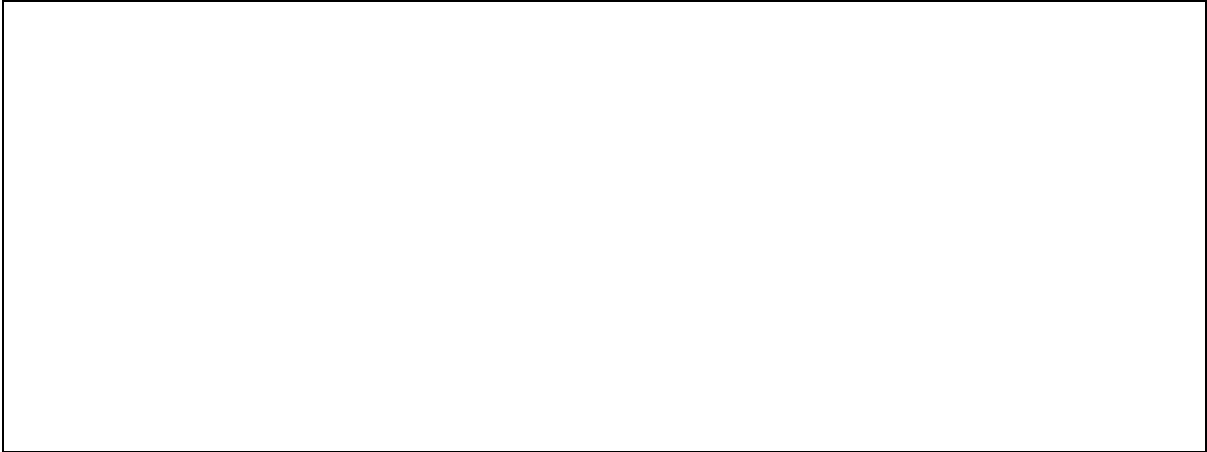
Excerpts from People's Daily, 8 January 2015, p.16,
<http://politics.people.com.cn/n/2015/0108/c1001-26352046.html>

- (a) What is the geographical location of the Hu Huanyong Line? Please roughly draw the Hu Huanyong Line on the provided map of China below (Figure 2.2).

Figure 2.2 Map of China for identifying the Hu Huanyong Line



(b) Is the Hu Huanyong Line an official border that we can observe physically?

A large, empty rectangular box with a thin black border, intended for the student's answer to question (b).

(c) How can the Hu Huanyong Line divide the population in our country?

A large, empty rectangular box with a thin black border, intended for the student's answer to question (c).

Lesson 2: Physical factors affecting population distribution in our country

Guangdong Province and Qinghai Province are selected as example to understand how the physical factors affect population distribution in our country.

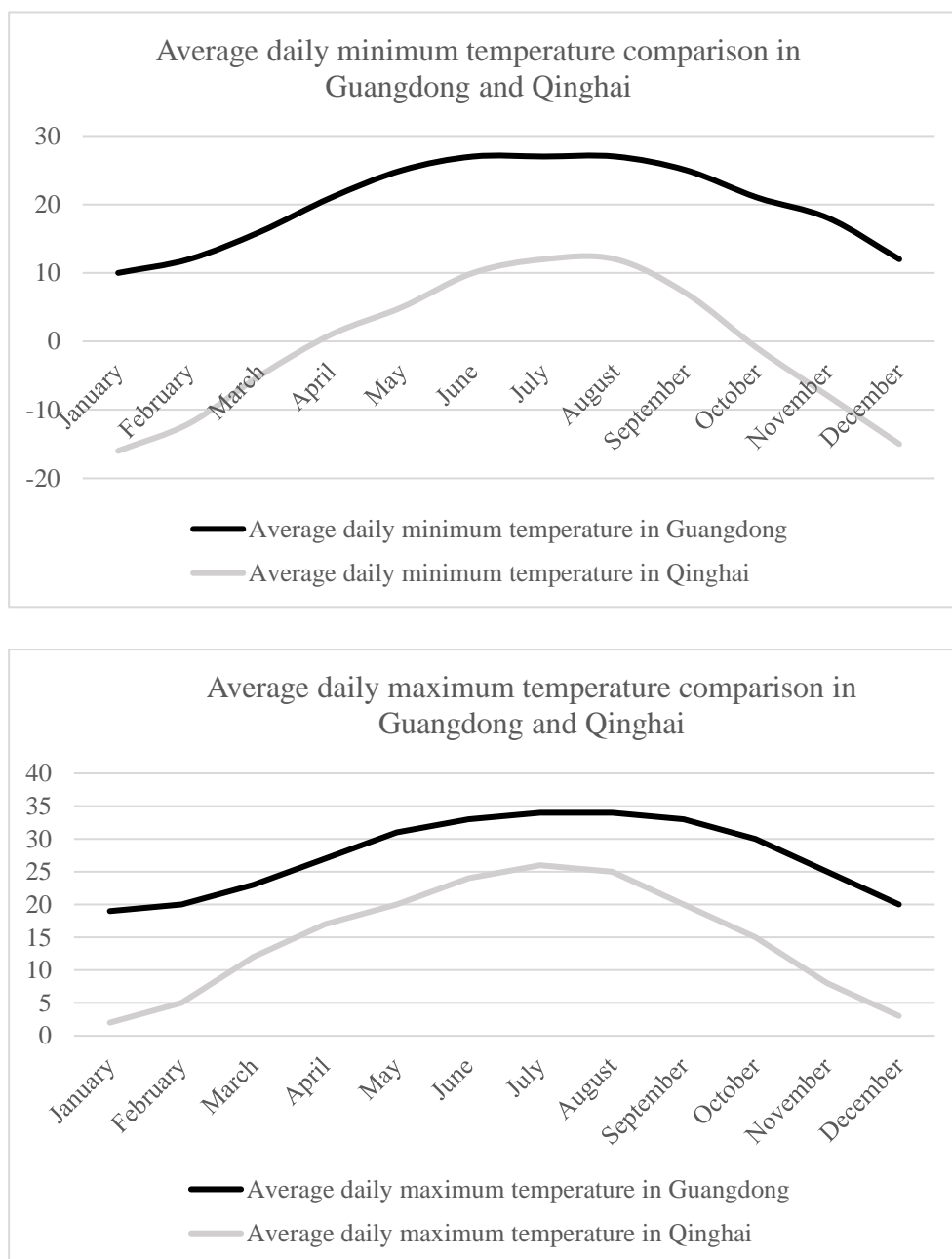
With reference to Figure 2.1 and Figure 2.3 & 2.4, circle the characteristics of the two provinces in Table 2.1 and discuss the following questions.

Table 2.1 Comparison between Guangdong and Qinghai Province

	A. Guangdong Province	B. Qinghai Province
Location in China	Eastern / Western	Eastern / Western
Population Density	High / Low	High / Low
Temperature	Warm / Cold	Warm / Cold
Precipitation	High / Low	High / Low
Relief	High / Low	High / Low

- (a) What are the impacts of climate on population distribution in our country? Discuss it by using the given data of Guangdong and Qinghai Province in Figure 2.3 and 2.4.

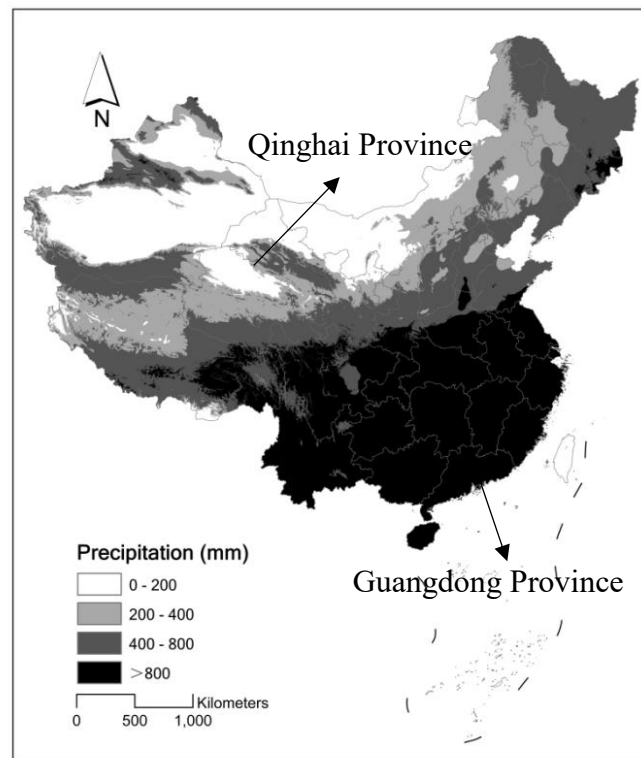
Figure 2.3 Comparison of daily average minimum and maximum temperatures in Guangdong Province and Qinghai Province.



Source: China weather website

https://www.tianqi.com/qiwen/city_guangdong/; https://www.tianqi.com/qiwen/city_qinghai/

Figure 2.4 Average annual precipitation distribution map in our country in 2020

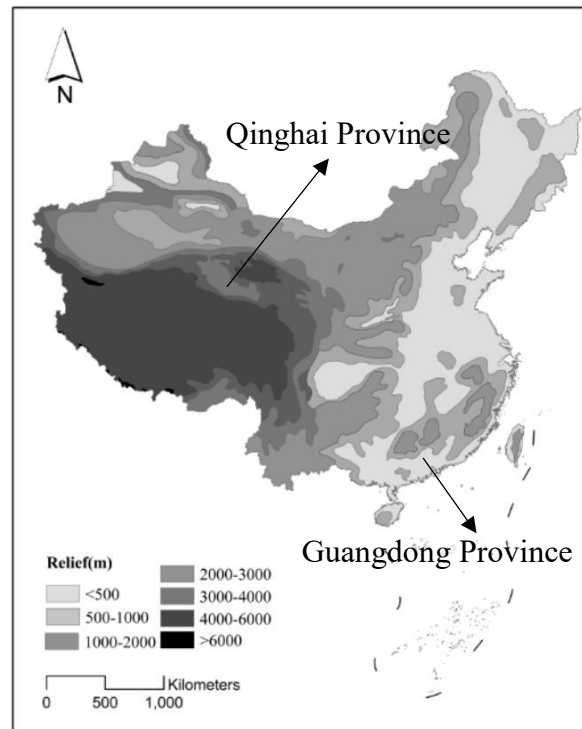


Source: Resource and Environment Science Data Platform, 2020

<https://www.resdc.cn/data.aspx?DATAID=230>

- (b) What are the impacts of relief on population distribution in our country? Discuss it by using the given data of Guangdong and Qinghai Province in Figure 2.5.

Figure 2.5 The relief of our country



Source: Resource and Environment Science Data Platform, 2020

<https://www.resdc.cn/data.aspx?DATAID=124>

Post-lesson task

The year 2015 marked the 80th anniversary of the discovery of the Hu Huanyong Line. Scholars used the 2010 census data to verify the line's accuracy and found that the proportion of the population living west of the line was about 5.6%, which has remained relatively constant since the 1930s. This finding indicates that the Hu Huanyong Line has remained remarkably stable over time.

- (a) The Hu Huanyong Line was proposed almost 90 years ago, and it remains unchanged to this day. Why does it remain unchanged?

- (b) There are debates on the potential impacts of migration on population distribution in our country. Can migration alter the uneven population distribution in our country?

To promote the development of western China, various measures and policies can be adopted to encourage population migration from east to west.



Most of the western region is restricted by natural conditions and is not suitable for large-scale immigration. It is important to develop education to enhance the qualities of population.