Chinese Geography - An Overview

Today, China is the third-largest country in the world. Third in land size to only Russia and Canada, China has close to 4 million square miles of land. To its north, China is bordered by Mongolia and Russia. Kazakhstan and Kyrgyzstan share China’s western border, and its southern neighbors include India, Nepal, Burma, and Vietnam. In 1990, China’s population hovered slightly over 1 billion people, but by the year 2025, China is expected to have over 1.5 billion. Today, at around 1.3 billion people, China is the most populated country in the world.

China was much smaller in ancient times than it is today. As time passed, the people of China have expanded their boundaries to take over more and more land. So, when we think about China’s geographic size today, we have to remember that China was not always that large. Historians have divided China’s history into two distinct zones, that of China Proper and Outer China. China Proper is what most of China’s history revolves around. Here, Chinese culture was most dominant throughout China’s history. Outer China contains the edges of Chinese civilization, and was populated largely by small ethnic groups.

The Geography of Outer China

Outer China is the massive land area to the north and west of China Proper. Throughout this region, the land elevation ranges from 1,000 to 5,000 meters above sea. These areas, due to the harsh environment and physical terrain, presented the people of the region with tremendous difficulties.

China is bound by the Himalaya Mountains to its southwest. Called the “roof of the world,” this mountain range includes the largest plateau in the world, the Tibetan Plateau. This plateau has an average elevation of over 16,000 feet! Due to the extreme elevation, this plateau is a bitterly cold place to live; the region averages a temperature of -4°F in winter months. The plateau is home to 37,000 glaciers, which feed the largest rivers of Asia, the Ganges, Yangtze, and Mekong. Snowstorms are very common and are very dangerous. In 2008, the Tibetan Plateau had its worst snowstorm on record; seven people were killed when 59 inches of snow fell over 36 hours!

China’s northwestern habitat is just as difficult to handle as its southwest. The northwest contains one of the lowest places in China and is the third-lowest place on earth. It is called the Turpan Depression. At the center of the depression lies the Aying Lake, which has an elevation of 154.5 meters (507 feet) below sea level. The climate here is unforgiving; the basin has a harsh desert climate where the precipitation is far less than the potential evaporation. This means that more water is being evaporated than can fall! In July, the 24-hour average temperature is 90°F. Due to its climate, the Turpan Depression is often called one of the Furnaces of China.

In the northeast, the Northeastern Plain, also known as the Manchurian Plain, dominates the region. Like the northwest and southwest, the environment here is very tough to handle. In January and February, temperatures rarely exceed 0°F, and its warmest month of July has an average temperature of only 72°F. While farmers grow soybeans and grains in the southern-most part of this plain today, this would have been difficult for ancient people to manage.
The Geography of China Proper

China Proper is the region that consists of the southeastern part of present-day China. To differentiate between the core of China and its frontiers, writers have long called this more-populated region by this name. However, some view this term as controversial; by calling this area “China Proper” it implies that Outer China is not truly a part of China.

China Proper, when compared to the far west, is much closer to sea level. If one began in the western parts of Outer China and traveled east toward the Pacific Ocean, one would quickly descend into much more manageable territories. China Proper is made up of lowland plains, basins, hills, valleys, and mountains. These desirable features are what has allowed China Proper to be densely populated and intensively cultivated for centuries. Historically, farmers who inhabited the area owe this cultivation to the great rivers of China. These rivers depart from high elevations in the west, pass through China Proper, and routinely enrich the soil through annual (or semiannual) flooding. They also provide farmers with a consistent water source that they can use to irrigate their land. Due to these factors, it is no wonder why early settlers chose to settle in China Proper over Outer China.

Two major regions exist within China Proper: the North China Plain and the Chang Jiang Basin. The only real similarity between these regions is the presence of a major river. The Huang He River (or the Yellow River) flows through the middle of the North China Plain and is a main reason why the region is one of China’s largest agricultural centers. Today, corn, soybeans, sorghum, wheat, vegetables, and cotton are all grown in the plain. Being much further south, the Chang Jiang Basin’s climate is much more wet and warm than that of the North China Plain. Too, the Chang Jiang River (or the Yangtze River), which flows through the basin, has allowed life to be sustained there for 27,000 years! Even more impressive, the Chang Jiang River allowed the basin to become a major population center by the end of the 5th millennium B.C.E.

Here, workers are seen in a paddy field harvesting rice. Rice relies on a wet and warm environment to be cultivated. This picture is a modern snapshot of life in the Chang Jiang Basin. What does this tell you about the climate in the basin and what crops were (and still are) grown there?
Outer China’s first feature is . . . **The Tibetan Plateau!**

Nicknamed the “roof of the world”, “the Third Pole”, and the “Asian water tower” the Tibetan Plateau dots the landscape of China’s southwestern border. While its highest peak is a mammoth 16,000 feet above sea level, its average elevation exceeds 14,800 feet. Experts have determined that the Tibetan Plateau is still rising; due to collision of the Indo-Australian and Tibetan plates, the plateau rises around 5 millimeters per year. Not only is the Tibetan Plateau the tallest in the world, it is also the largest. The plateau stretches over 970,000 square miles, which is over four times the size of France!

If you visited the Tibetan Plateau, you would certainly be intimidated by the daunting physical terrain. You would feel as if you were completely surrounded by mountains. In fact, you would be! The Tibetan Plateau is surrounded by the highest peaks in the Himalayas, Pamir, and Karakoram mountain ranges. One of these peaks, Mount Everest, which is part of the Himalayas, is the tallest mountain in the world at an astonishing 29,028 feet.

While most would prefer to avoid the Tibetan Plateau, those in China would be wise to recognize the plateau’s important to their everyday life. In fact, National Geographic summarized the importance of the major rivers that begin their journey high up in the Tibetan Plateau:

“All told, some two billion people in more than a dozen countries -- nearly a third of the world's population -- depend on rivers fed by the snow and ice of the plateau region.”

The popular magazine and television network was referring in large part to two of China’s greatest rivers: the Huang He (the Yellow River) and the Chang Jiang (Yangtze River). However, even though the rivers begin here, the region is still very dry. It was far too cold in the plateau to grow crops consistently, and those who lived here relied heavily on roaming animals such as yaks and goats. It was their meat, fur, and milk that kept early settlers alive.
Two great deserts mark the landscape of Outer China's northwestern region - the Taklamakan and Gobi Deserts. These two deserts are almost complete opposites of each other. In fact, the only similarities the Gobi and Taklamakan deserts share are very general. They both located on the northwestern frontier, both share a border, both are difficult places to live due to a sweltering hot climate, and both provided challenging situations for travelers along the Silk Road. To survive in either desert one would have to find an oasis. These provided great places to grow crops, raise animals, and create mud-brick homes. However, as you will discover below, the Gobi and Taklamakan Deserts share far more differences than similarities.

The Taklamakan Desert

Also known as Teklimakan, the Taklamakan Desert is located west of the Gobi Desert in northwestern China. While still a very large desert, the Taklamakan Desert dwarfs that of its eastern neighbor; the Taklamakan is estimated to be roughly 130,000 square miles while the massive Gobi Desert is over 500,000 square miles in diameter. Do not let its size fool you, however. The Taklamakan Desert is considered to be one of the most dangerous deserts in the world. According to National Geographic magazine,

“[the Taklamakan Desert] is, the most deadly stretch along the legendary Silk Road, the desert into which entire caravans disappeared without a trace. To locals, the name “Taklamakan” has come to mean “If you go in, you don’t come out.”

The Taklamakan Desert evokes images of a classic desert: huge sand dunes and strong, blowing winds. It is not uncommon for sand dunes to reach over 100 yards tall! If you were planning on crossing this desert then you had better get used to the dunes - over 85% of the desert is made up of them!

Living in this desert is nearly impossible due to its lack of water. However, many oasis towns were able to thrive here, such as Kashgar and Marin.

The Gobi Desert

The Gobi Desert borders the Taklamakan Desert to the east and is one of the world's largest deserts. While its size dwarfs that of its neighbor, the terrain of the Gobi Desert also represents a stark difference between the two. Most of the Gobi is not sandy but instead contains bare rock and gravel. Also, while the Taklamakan is known to be very warm, the Gobi Desert is a cold desert. Being further north than its neighbor and located at a higher elevation both contribute to this sharp temperature difference. But, this does not mean that the Gobi has a desirable climate. In fact, the Gobi's climate is one of extremes; the temperature can change as much as 63°F in just 24 hours!
Located north of present-day Korea and east of present-day Mongolia, the Northeastern Plain was actually once part of the Mongol Empire in the mid-1200s C.E. Parts of the plain were reclaimed by China in the 1300s and continued to fight over the area for another 500 years. It was not until 1946 that China resumed control of the plain. There is a reason why the Northeastern Plain has been fought over by a variety of neighboring forces: it is an area dominated by low hills, plains filled with natural vegetation, and it provides easy access to the East China Sea. In ancient times, the region was a homeland to several nomadic tribes, such as the Manchu and the Ulchs. While the climate was not ideal for growing crops, grassy vegetation existed that allowed animals, such as sheep, yaks, and horses to graze. It is likely that the tribes in the area relied heavily on these animals for their survival.

The Northern Plain has a handful of rivers that make the plain very easily navigable, but the Amur River has historically played the largest role in the plains development. Today the tenth-largest river in the world, many competing forces have sought control over the Amur River. The river is valuable because of how it sprawls throughout the entire plain; this provides easy access to the eastern seas as well as access into mainland Mongolia.

Perhaps no other region in China has as stark as contrasts in climate than the Northeastern Plain. The climate ranges from extremely humid, almost tropical heat in the summer to dry, windy, Arctic cold in the winter. Too, the region experiences heavy thunderstorms in summer months as pressure systems change. While enough grassy vegetation exists on the plain to support a variety of animals, the climate is far too inconsistent to provide a good environment for growing crops.

The rich grasslands of the Northeastern Plain provide an ideal environment for grazing animals. However, the climate can be somewhat chilly. The temperature may only reach a high of 75 degrees in summer and an average temperature of 10 degrees in the winter.
These silt deposits have played a crucial role in a variety of ways to China’s history. The deposits made the land fertile, which created jealously among foreigners and lead to foreign invasions. The Great Wall was constructed in order to repel these invading groups. Today, the valuable farmland has lead to one of the world’s most densely populated regions. However, the most significant way this silt has impacted Chinese history is that the Yellow River has also been called the “cradle of Chinese civilization.” It was this river that lead to one of the first great human civilizations. The fertile land created by silt deposits left over by floods made this plain ideal for growing crops. In fact, many ancient settlers agreed!

Even though the fertile areas along the banks of the Huang He have helped farmers over the years, it has also earned the nickname of “China’s Sorrow.” The river has flooded over one thousand times and has brought much death and destruction to the region. The main reason the floods occur is due to the silt that settles in the bottom of the river, thus causing water levels to rise. One of the worst floods occurred in 1887 and killed an estimated 900,000 people.

Because of its fertile soil, the North China Plain has often attracted outside invaders. In fact, Emperor Qin first ordered construction of the Great Wall in northern China in 210 B.C.E. to protect from the invading Mongols. The wall was extended to its current state by the Ming Dynasty in the 1300s.

The North China Plain has often been nicknamed the “Land of the Yellow Earth” because of the yellow silt left behind by the Huang He River (or Yellow River). The great winds of the Gobi Desert blow the silt south to the North China Plain. Here, it is deposited in the Huang He River. In fact, these wind storms have caused the Gobi Desert to expand drastically since ancient times.

Today, many Chinese leaders have grown concerned about how fast the Gobi Desert is expanding into the North China Plain. So much silt has been carried into the region that the Huang He River (which runs through the plain) has a strong yellowish-tint. This is due to the silt deposits. The silt gives the river its name, Huang He, or the “Yellow River.” This makes the river appears to be more like soup than water.
The Chang Jiang Basins are located around the rich Chang Jiang River (also known as the Yangtze River). The ideal environment in the basins made the region very attractive to ancient people. In fact, today this area is home to one-third of China’s entire population. The basins experience four distinct seasons and are evenly distributed. Summers are warm and wet and have an average temperature of 88°F while winters are fairly mild with an average temperature at just 47°F. The moist, humid environment of the basin makes the cultivation of rice an ideal crop.

Like the Huang He River, the Chang Jiang starts high up in the Tibetan Plateau and weaves its way east through south-central China. From the plateau where it begins to where it empties into the East China Sea, the Chang Jiang is measured to be around 3,900 miles long. This makes the Chang Jiang the longest river in all of Asia; in fact, its name translates to literally mean “Long River.” The length of this great river has led to the basin having some of highest levels of biodiversity in the entire world - ranging from dense forests to fertile wetlands. Too, the great length of this river has sustained numerous local communities with fresh drinking water and has provided easy access throughout central China.

The basin has a very fertile soil that is created from the occasional flooding of the Chang Jiang River. While the Chang Jiang floods much less often than the Huang He, it can still be devastating when a flood does happen. For example, the 1931 Yangtze River floods are some of the worst on record. Over two feet of rain fell from July to August 1931, and the devastating result ended with between 3.7 to 4 million people dying.

The warm, wet environment of the Chang Jiang Basins allow for rice to thrive!