

Climate

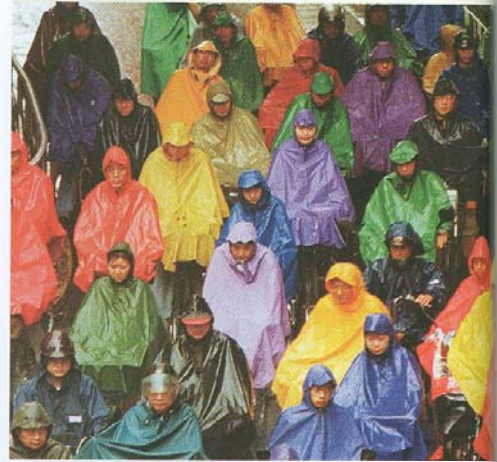
CHINA IS A LAND OF DIVERSE CLIMATES, supporting a wide range of vegetation, landscapes, cultures, and lifestyles. The southeastern part of the country is subtropical, characterized by mild winters and hot and humid summers. It is also wet, lying directly in the path of moisture-bearing winds from the South China Sea. Northeastern China experiences cold, dry winters and mild, moist summers. Close proximity to the Siberian High produces the country's lowest winter temperatures. Extensive areas of northern and northwestern China, shielded from the ocean by mountain ranges, are extremely arid. Summer temperatures vary widely with elevation, ranging from China's hottest in low-lying valleys, to pleasantly cool in the mountains.

The Plateau of Tibet dominates southwestern China's climate. Winters are cold and dry, but temperatures are moderated by the relatively low latitude and distance from the Siberian High. Summers are generally cool to cold, depending on elevation. The plateau acts as a formidable barrier to moisture-bearing winds flowing north and northwestward from the Bay of Bengal and the South China Sea. As a result, the southeastern flank of the plateau is relatively wet, while the northern and western regions are very dry, even in summer.



AT A GLANCE

WETTEST	NORTHERN TAIWAN MOUNTAINS (MORE THAN 200 INCHES/YEAR)
DRIEST	TURPAN DEPRESSION, (LESS THAN 1 INCH/YEAR)
WARMEST WINTER	SOUTHERN COASTS OF TAIWAN AND HAINAN ISLANDS (59 TO 64°F)
COLDEST WINTER	EXTREME NORTHEASTERN CHINA (27 TO -35°F)
HOTTEST SUMMER	HIGHEST ELEVATIONS OF THE NORTHERN PLATEAU OF TIBET (LESS THAN -31°F)
COOLEST SUMMER	TURPAN DEPRESSION (100 TO 104°F)
	HIGHEST ELEVATIONS OF THE NORTHERN PLATEAU OF TIBET (23 TO 32°F)



Monsoons: People with colorful rain ponchos ride bicycles and mopeds in the rain on a June day in Shanghai. Heavy rains from the summer monsoon (see description below) can cause severe flooding in China's densely populated southeast—in some years resulting in the loss of many lives as well as billions of dollars in damage. In contrast, China's cooler, drier northern areas are often affected by fierce sand and dust storms caused by northerly winds carrying cold, dry air from Siberia (see *The Siberian High*, below). This phenomenon is known as the "winter monsoon."

THE SUMMER MONSOON

The summer monsoon, responsible for the bulk of China's precipitation, is an inland flow of moist air off the ocean that occurs when the land becomes warmer than the ocean. The main routes of monsoonal moisture are into Tibet from the Bay of Bengal, and through southeastern China from the South China Sea. Unlike the Plateau of Tibet, which is an effective barrier to moisture, the relatively flat terrain of southeastern China allows heavy rains to penetrate well inland.

THE SIBERIAN HIGH

The Siberian High is a center of dry, cold air that develops each winter over eastern Siberia. This air mass flows outward from its center into northern China, as well as Mongolia and Korea, producing generally clear, dry winter weather. Winter minimum temperatures in extreme northern China average -22°F (-30°C) and below, which can be colder than those found at high elevations on the Plateau of Tibet. Winter temperatures rise steadily as one moves southward, away from the Siberian High.