### **Encyclopedic Entry**

# steppe

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A steppe is a dry, grassy plain. Steppes occur in temperate climates, which lie between the tropics and polar regions. Temperate regions have distinct seasonal temperature changes, with cold winters and warm summers.

Steppes are semi-arid, meaning they receive 25 to 50 centimeters (10-20 inches) of <u>rain</u> each year. This is enough rain to support short <u>grasses</u>, but not enough for <u>tall grasses</u> or trees to grow. Many kinds of grasses grow on steppes, but few grow taller than half a meter (20 inches).

#### **Eurasian Steppe**

The largest temperate grassland in the world is the Eurasian steppe, extending from Hungary to China. It reaches almost one-fifth of the way around the Earth. The Eurasian steppe is so well-known, the area is sometimes referred to as just The Steppe.

The Eurasian steppe has historically been one of the most important routes for travel and trade. The flat expanse provides an ideal route between Asia and Europe. Caravans of horses, donkeys, and camels have traveled the Eurasian steppe for thousands of years. The most famous trade route on the Eurasian steppe is the Silk Road, connecting China, India, and Europe. The Silk Road was established around 200 BCE, and many Silk Road trade routes are still in use today.

During the 13th century, Mongolian leader Genghis Khan conquered almost the entire Eurasian steppe. With expert horsemen, Khan conquered territory from his home in what is now Mongolia, through China, Central Asia, and the land around the Caspian Sea.

The equestrian culture that was so important to Genghis Khan is still important for most cultures native to the Eurasian steppe. From the Mongolian tradition in the east to the Cossack traditions of western Russia, these cultures have relied on horses for travel, trade, and conquest on the vast steppe. To this day, many festivals and community activities focus on horseback riding.

#### **Other Steppes**

The dry, shortgrass prairie of North Americas Great Plains is also a steppe. The shortgrass prairie lies on the western edge of the Great Plains, in the rain shadow of the Rocky Mountains. It extends from the U.S. state of Texas in the south to the province of Saskatchewan, Canada, in the north.

Many of the worlds steppes have been converted to <u>cropland</u> and <u>pasture</u>. Short grasses that grow naturally on steppes provide grazing for cattle, goats, horses, camels, and sheep. Sometimes steppes are overgrazed, which occurs when there are more animals than the land can support.

When the short grasses of the steppe are plowed under for agriculture, the soil can erode very quickly. Important nutrients anchored in the soil by grasses are simply blown or washed away. Agricultural development can also degrade the soil with fertilizer and other chemicals. This is called overcultivation.

Overcultivation can make grasslands look like <u>deserts</u>. The soil cannot <u>retain</u> enough water or nutrients for vegetation to grow. True deserts, however, receive less rainfall (less than 25 centimeters per year) than steppes.

### **VOCABULARY**

Term	Part of Speech	Definition
adapt	verb	to adjust to new surroundings or a new situation.
agricultural development	noun	modern farming methods that include mechanical, chemical, engineering and technological methods. Also called industrial agriculture.
agriculture	noun	the art and science of cultivating the land for growing crops (farming) or raising livestock (ranching).
American buffalo	noun	wild ruminant native to the North American prairie. Technically called bison.
anchor	verb	to hold firmly in place.
arid	adjective	dry.
Baikonur Cosmodrome	noun	(1955) Russian spaceport in Baikonur, Kazakhstan.
bison	noun	large mammal native to North America. Also called American buffalo.
caravan	noun	group of people who travel together for safety and companionship through difficult territory.
climate	noun	all weather conditions for a given location over a period of time.
conquer	verb	to overcome an enemy or obstacle.
conservation	noun	management of a natural resource to prevent exploitation, destruction, or neglect.
convert	verb	to change from one thing to another.
Cossack	noun	people and culture native to western Russia, Georgia, and Ukraine.
crop	noun	agricultural produce.
culture	noun	learned behavior of people, including their languages, belief systems, social structures, institutions, and material goods.
degrade	verb	to lower the quality of something.
desert	noun	area of land that receives no more than 25 centimeters (10 inches) of precipitation year.
distinct	adjective	unique or identifiable.
equestrian	adjective	having to do with horses.
erode	verb	to wear away.
establish	verb	to form or officially organize.

noun Eurasian dry, flat grassland stretching from Asia to Eastern Europe. steppe noun expanse large area. verb extend to enlarge or continue. noun fertilizer nutrient-rich chemical substance (natural or manmade) applied to soil to encourage plant growth. noun Genghis Khan (1162-1227) founder of the Mongol empire. noun type of plant with narrow leaves. grass noun grassland ecosystem with large, flat areas of grasses. verb to feed on grass, usually over a wide pasture. graze noun **Great Plains** grassland region of North America, between the Rocky Mountains and the Mississippi River. noun habitat environment where an organism lives throughout the year or for shorter periods of noun horseman person who is skilled in riding and managing horses. adjective ideal perfect. adjective manned carrying one or more people. noun nutrient substance an organism needs for energy, growth, and life. noun overcultivation process of growing too many crops in too short a time period on one area of land. noun overgrazing process of too many animals feeding on one area of pasture or grassland. noun pasture type of agricultural land used for grazing livestock. noun plain flat, smooth area at a low elevation. noun, verb plow tool used for cutting, lifting, and turning the soil in preparation for planting. adjective polar having to do with the North and/or South Pole. noun province division of a country larger than a town or county. noun rain liquid precipitation. noun rain shadow dry land on the side of a mountain facing away from prevailing winds. verb retain to keep. noun route path or way. adjective seasonal likely to change with the seasons. noun shortgrass large, flat region of land covered by grasses less than a meter (3 feet) tall. prairie noun Silk Road ancient trade route through Central Asia linking China and the Mediterranean Sea. noun soil top layer of the Earth's surface where plants can grow. noun spacecraft vehicle designed for travel outside Earth's atmosphere. noun facility for launching vehicles or capsules into space. spaceport

steppe	noun	dry, flat grassland with no trees and a cool climate.
tall grass	noun	type of grass that stands an average of 1.5 meters (5 feet) tall, such as switchgrass.
temperate	adjective	moderate.
temperature	noun	degree of hotness or coldness measured by a thermometer with a numerical scale.
territory	noun	land an animal, human, or government protects from intruders.
trade	noun	buying, selling, or exchanging of goods and services.
trade route	noun	path followed by merchants or explorers to exchange goods and services.
travel	noun	movement from one place to another.
tropics	plural noun	region generally located between the Tropic of Cancer (23 1/2 degrees north of the Equator) and the Tropic of Capricorn (23 1/2 degrees south of the Equator).
unmanned	adjective	lacking the physical presence of a person.
vegetation	noun	all the plant life of a specific place.

# For Further Exploration

# **Articles & Profiles**

• National Geographic News: Climate Change Driving Mongolians From Steppe to Cities

• National Geographic Environment: Grasslands

# Websites

• USAID: Mongolia—SCAPES



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