Sweden’s Physical Environment: Northern Lights (Aurora Borealis)

Bordered by Finland and Norway, Sweden beholds tens of thousands of scenic lakes, along with gorgeous Scandinavian mountain peaks, and a year-round chilly climate that delivers snow to the country for more than half the year, although climate change has not taken a severe toll on the country yet, they have reduced the use of fossil fuels by 70%. Sweden is a large, rural north European country. Tourists are often attracted to Sweden because of its amazing sights and quiet countryside nature. The country is home to many wondrous naturally occurring phenomenon and countless attractive sights.

This is the exact place to locate Sweden. Sweden can be found in northern Europe, bordered by Finland and Norway. It is situated on the Scandinavian Peninsula, which outskirts the Baltic Sea. The absolute location of Sweden is 62 degrees North, 15 degrees East. Sweden’s total area is 173,859.871 square miles, making it almost three times the size of Georgia. The coastline is roughly 2,000 miles long. The country’s lowest point is at sea level and the highest peak is the stunning Mount. Kebnekaise, standing at 6,926 feet tall.

The nation contains three general topographic regions. The largest district is Norrland, which comprises of the northern three-fifths of Sweden. It is composed of rolling hills, mountains, wondrous forests, and large river valleys. The second-largest, Norrland, which extends from the lower regions of the Dal River, northward. The smallest of the three, Svealand, is located in central Sweden, and is made up of fertile plains, wooded hills, and thousands of scenic lakes. This region at one time was home to a group of people called the Svear, who gave Sweden its name.

Sweden consists of many glorious geographical features. Some of Sweden’s territorial highlights include the rich Scandinavian Mountains, captivating glaciers, and the Gotland island. The Scandinavian Mountains contain the country’s highest peak, Mount Kebnekaise, which is 6,926 feet tall. These mountains are made of numerous glaciers and ice sheets, which also are prevalent in the northern region of Sweden. The island of Gotland is a large Swedish island and province in the Baltic Sea. Its towns interestingly have cobblestone streets and a well-preserved medieval city wall, giving it a medieval inclination. Sweden has many water features including nearly 100,000 lakes and many other water highlights. Vanern Lake is the largest lake in Sweden and the third-largest in the entirety of Europe. It is 2,181 square miles wide and 348 feet deep. The Indal River is one of Sweden’s longest rivers, being 261 miles long. A total of 26 hydro plants are placed along its course, making it the third-largest power-producing river in Sweden. Sweden’s topographic features are what the country is mainly famous for.

Ocean currents and winds do not have a significant effect on the climate of Sweden. Sweden has two climate types, temperate and subarctic. It is temperate in the south and subarctic in the north. Sweden is 65 degrees North of the equator, explaining why it gets very cold during the winter months. Sweden’s elevation gets no lower than sea level and its highest pinnacle is 6,926, explaining the cold weather. The North Atlantic Drift provides warmer air around Sweden’s coasts, so it is cooler inland than on the outskirts. Atlantic low-pressure winds also mildly warm the coasts of Sweden. Tectonic activity is very low in Sweden. The chances of

earthquakes is about one magnitude 5 earthquake every hundred years. There has only been one magnitude 8 earthquake recorded in the history of Sweden.

Sweden does not experience much rain throughout the year, but snow is very prevalent. During winter, snow remains on the ground for around six months. Most rain is concentrated in the western area of the country. Sweden only experiences about two to three thunderstorms during summer. The average annual precipitation is about 24 inches. The temperature of Sweden is overall mildly cold. The summers are considerably chilly, reaching up to 64 degrees Fahrenheit. The winters are cold, the average low being 26 degrees Fahrenheit.

Sweden experiences seasonal phenomena year-round. In the summer, the country experiences midnight sun. The midnight sun is a naturally occurring phenomenon that usually occurs in the summer months in places north of the Arctic Circle or south of the Antarctic Circle. During midnight sun, the sun remains visible throughout the night. Polar nights are also prevalent during the winter months. Polar nights are the opposite of the midnight sun, when the sun is not visible over the horizon at all. This phenomenon only happens within the polar circles, which northern Sweden is a part of. The most spectacular phenomenon that occurs in Sweden is the northern lights or aurora borealis. The aurora borealis is a natural electrical phenomenon that creates the appearance of streamers of blue, red, and green light in the sky. This usually occurs in the Earth's northern hemisphere and Sweden annually experiences it. Midnight sun, polar nights, and the Aurora Borealis phenomenons are mainly unique to Sweden.

Severe weather is very uncommon in Sweden. There are few thunderstorms every year and hurricanes happen only once in a decade, if that. The biggest weather-related disaster recorded in Swedish history is a hurricane called hurricane Gudrun. On January 8th, 2005, hurricane Gudrun hit Sweden. There were a total of 7 deaths, and it cost the country 1.2 billion dollars. Over 1,800 homes were flooded and many civilians were displaced.

Sweden hold many different species of wildlife and vegetation. There are many forests scattered across the country. These forests inhabit plants like oak, linden, ash, elm, beech, and maple trees, in the south. The forests are also rich with lingonberries, blueberries, and mushrooms. It is Swedish law that while hiking in these forests, anyone can pick and enjoy berries and mushrooms. Various animals also inhabit the forests. There are large numbers of moose, roe deer, foxes, and hares. The moose are great prizes for hunters, but often wander to highways and cause traffic hazards. Many animals related to hunting and fishing are very closely protected and conserved under law, keeping them safe from poachers. There are also a few species of animals that are endangered in Sweden. Wolves that once lived in Swedish forests went almost completely extinct, but are gradually making a comeback. Environmental pollution has also taken its toll on the Baltic seal and some fish species inhabiting the Baltic Sea. The indigenous forests of Sweden are home to many varieties of flora and fauna.

Global climate change hasn't strongly impacted Sweden yet, but when it does, the government is prepared. In 2006, the Swedish government set a goal to end dependence on fossil fuels by the year 2020. They also challenged themselves to use all renewable resources for energy by 2040. For example, wind power, geothermal power, and biomass from forests and farms. As of 2013, Sweden's energy is only 30% derived from fossil fuels. In 2017, the government set another goal to reduce all greenhouse gas emissions they put out by 2045. Sweden's government is already starting to make changes to help prevent climate change.

Though not much yet, there are some apparent environmental challenges that are impacting Sweden. About one-fifth of Sweden’s lakes have been damaged from acidification, and groundwater is also threatened. The culprit of this damage is acid rain, polluting the Baltic Sea and coastal waters of Kattegat simultaneously. To help fix this, the first Nature Conservancy Act was passed in 1909, and in 1969 a modern Environmental Protection Act was passed. These acts claimed that Sweden’s land needed to start being protected. Since then tens of thousands of square miles of land have been set aside as national parks and nature reserves. Acid rain has taken a toll on many of the country’s lakes and could permanently harm them if nothing is done about it.

These new parks are protected under law and attract many tourists. Two of Sweden’s largest national parks are Sarek and Padjelanta. Sarek Park contains more than 100 glaciers and the northern lights can be seen around this area. Padjelanta Park offers vast tracts of open beautiful landscapes. Another national park, Muddus is known for its deep ravines, and Stora Sjofallet Park, for its forest and alpine peaks.

Being bordered by the cold countries of Finland and Norway, the mountainous land of Sweden’s climate is considerably colder than other countries, regarding this, the thousands of lakes inhabiting Sweden are experiencing acid rain damage due to climate change, in response, the country has successfully taken it upon themselves to reduce the use of fossil fuels by 70%. Sweden’s incredible landscape is all thanks to thousands of miles of land being conserved under law. The chilly climate provides a home for a variety of forest animals and vegetation. Although a few animals are being affected by mild environmental dangers, most of the wildlife is thriving due to poaching protection. The beauty of the Scandinavian Mountains, big forested plains, and glaciers is captivating. The only way Sweden’s lush physical features can be protected is under law, and that dream is already a reality for Sweden.