

# Climate and topography analysis assignment



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Climate and Topography Analysis Gerardo “ Gerry” Camacho University of Phoenix BUS-475 November 2, 2009 Climate and topography are two very important factors that may influence industries profitability and productivity. Is important for business leaders to recognize how climate and topography factors impacts different industries. Recognizing climate and topography could be of assistance for businesses venturing into the global business environment arena. Climate and topography are factors of huge importance when determining location and strategic planning.

One of the industries most affected by climate and topography is the transportation industry. The transportation industry is vital to any economy. The transportation industry takes care of moving people and merchandize by land, sea, and air. One may say this industry is the veins and arteries of the economy. Topography has a direct impact on this important industry. The relationship between the location of roads, seaports, airports, and populated areas are crucial. Construction of new roads and bridges must take into consideration soils studies and topographic charts.

The construction and location of airports needs to consider noise abatements areas and topographic configurations that may present obstacles to landing and departing aircraft. Airports also are extremely dependent on climate considerations. “ Apart from their primary functions such as handling passengers, freight and aircraft, airports nowadays play a strategic role in regional development and are key facilities for the competitiveness of any territory. Airports are engines for economic activity, create direct and indirect employment and may act as innovative centers for new (environmental) technologies within a region.

Moreover, modern airports function as intermodal transport nodes and incorporate hotels, shopping facilities, office space, conference rooms and leisure facilities. As such, they are recognized as clusters from a general spatial perspective and “airport cities” in specific if they show the qualitative features of a city: density, access, quality, environment, services (Guller & Guller, 2003). “Weather and climate considerations must be taken into consideration. The consequences of building and airport on a location where weather is detrimental and hard to predict could be devastating and considered by some to be a safety concern.

Another industry that depends greatly on topography and climate is the oil industry and in particular the oil refinery industry. The oil refinery industry uses industrial procedures to process crude oil and to refine it into more useful petroleum products, like gasoline, diesel fuel, asphalt base, heating oil, kerosene, and liquefied petroleum gas. Based solely on the definition of oil refinery, topography is essential to this industry. Oil refineries are usually on topographic locations that offer safety to near populations.

The site has to be reasonably far from residential areas, the facilities for raw materials access and products delivery to the refinery consumers should be easily available, the processing energy requirements should be easily available, and waste product disposal should not cause many difficulties. The climate presents challenges as well. According to Brian Merchant “The oil industry has a warning for all of us: “U. S. refining production may drop by a quarter by 2030 if the climate-change legislation approved by the House becomes law, the American Petroleum Institute said.

This, from a report today in Bloomberg that reveals that the climate bill will do exactly what it's supposed to do. Bloomberg says that the oil industry group American Petroleum Institute (the same folks behind the Energy Citizen rallies) commissioned a study on the impacts of the climate bill on stateside oil refining, and the report found that it will cut into both oil refining, and investment in oil refining. Oil refining will drop 25% by 2030, and investment in oil refining will drop as much as 80% by then". The article by Merchant clearly depicts the enormous consideration the oil refinery industry gives to climate.

The same consideration, on a smaller scale, the electronics industry enjoys. The electronics industry is the combination of manufacturers of electronics products at different scales. Climatic considerations are very important to the electronics industry. The incorrect climatic condition could cause devastating effects for example " Tribocorrosion involves mechanical and chemical/electrochemical interactions between surfaces in relative motion in the presence of a corrosive environment. Tribocorrosion phenomena are encountered in many technological areas where they cause damage to installations, machines, and evices. Often tribocorrosion damage is a problem for safety or for human health. In other applications tribocorrosion phenomena are put to good use in manufacturing. The chemo-mechanical mechanisms of tribocorrosion are still incompletely understood, they involve the properties of contacting material surfaces, the mechanics of the contact and the corrosion conditions (D Landolt, 2006). " The tribocorrosion example clearly illustrates how climate could directly affect the electronics industry. Topographic considerations are also directly linked to this industry.

The incorrect topographic location chosen for a factory or distribution center could cause millions in losses to the industry. The electronics industry depends on strategic topographical locations for distribution, raw materials, and ease of shipping and receiving materials. Another industry that depends gravely on good climate and the correct topographical data is the food and beverage industry. The food and beverage industry refers to mostly prepackaged foods and drinks. The products are used by consumers at home, restaurants, or entertainment events.

The food and beverage industry depends directly on agriculture as raw material, hence the importance of topography for food processing. Food processing is the methods and techniques used to transform raw ingredients into food for human consumption. Food processing takes clean, harvested or slaughtered and butchered components and uses them to produce marketable food products. The different ways in which food can be produced are many but all are dependent on locations topographically apt for agriculture. One cannot mention agriculture without mentioning climatic concerns.

According to the Finnish Meteorological Institute “ The food and beverage industry depends on favorable climatic conditions and locations for their raw material. Because climate conditions are different around the world, the importance of climatological information and real-time meteorological information is emphasized differently. In Finland, for example, real-time weather information is more important than in central parts of Africa because the weather in Finland is less predictable. In fact, it is sometimes difficult to appreciate the importance of climatological information. The <https://assignbuster.com/climate-and-topography-analysis-assignment/>

importance of climate and topography for the food and beverage industry cannot be stressed any further. Another industry also affected by the climate and topography to remain competitive is the textile industry. The textile industry is a conglomerate of industries concerned with the manufacturing, designed, and distribution of clothing items and the use different uses of cloth. The importance of choosing the correct topographical location for this industry cannot be undermined. One could use as an example the study conducted by Muneer, Maubleu, and Asif. They used Pakistan as their testing ground. Pakistan is amongst the most prominent cotton producing countries in the world. The affluent availability of local cotton has lead to a well-established textile sector in Pakistan. A large proportion of its cotton products go into export. Being a successful candidate in international textile market Pakistani textile industry is continuously seeking modern and high-tech facilities to improve quality of its products. The biggest challenge Pakistani textile industry is facing today is how to cut down its environmental burdens to cope with the international standards on the issue.

Water heating system as required for dyeing process is one of the major energy consuming areas in fossil fuel-run Pakistani textile industry. Water heating system therefore has a significant contribution towards total environmental impacts associated with textile sector. " The topographical and climate location of Pakistan made it ideal for the construction of solar water heaters that reduced the fossil energy consumed and increased the quality of the product. In conclusion, topography and climate considerations must be considered as one of the most important aspects of any business plan having globalization as an end goal.

As the chart below, developed on 2007 by the US Department of Energy, clearly depicts topographic factors, climatic factors, energy costs, and profits are clearly linked and interdependent. It is important for future business managers understand the importance of these factors when embarking on global business ventures. [pic]

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