

Geological surface on earth (hallmann and steinberg,



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Geological features have historically provided dramatic and enchanting views for people. Some examples include mountain peaks, desert surfaces and coastal cliffs. Despite providing magnificent sceneries, the potentially harmful nature of some of these features provides hazards to the society. Landslides and volcanic eruptions have always been cataclysmic, leading in loss of lives.

These features have been used in scientific research studies while others serve as tourist attractions. The features display some similarities and differences depending on whether they are in deserts or glaciers. Desert landscapes cover slightly over one third of the land surface on earth (Hallmann & Steinberg, 2000). They are usually dry, receiving extremely minimal rainfall, thus supporting a small number of life forms. The vicinity frequently experiences harsh climatic conditions typified by either exceptionally hot or extremely cold.

There are diverse forms of deserts classified depending on the quantity of rainfall received and its location. The contrast between the desert and glacial landscape is the extreme weather conditions and landforms dotted across the surface. The desert landscape is characterized by kilometers of dunes and stone surfaces. Stones of unlike solidity and constitution erode at singular rates to fabricate the splendid wilderness imagery. Several features including playas and blowouts make up the desert landscape (Ryan, 2008). Glaciers also face displacement and erosion, similar to deserts, which result in the formation of landforms. The glacier rubs out substances underneath it as it shifts leaving matter on rocks (Ryan, 2008). The glacier accumulates

the material which it eventually deposits elsewhere, giving evidence to their direction of movement.

The resulting landform of the desert landscapes is characterized by its configuration through wind actions and weathering. When the globe heats up, warm air, which is less heavy, physically ascends to the summit headed for the poles while cold air settles down. This breeze process is though affected by the revolving of the world thus fashions a sidetracking energy on the current of air. The rotational speeds of the wind depend on the distance from the equator (Ryan, 2008). The speed of rotation is frequently zero and the poles and gradually increases towards the equator.

Glaciers are formed when it is cold enough for ice not to melt during winter snow. This climate is normally experienced in elevated areas around the polar. Huge accumulations of snow must exist in a gently sloping rocky area which will prevent its loss (Hallmann & Steinberg, 2000). Molecules in the ice are reorganized without change of physical structure, forming new crystals. Even though it is presently being amplified by the media, climatic changes have historically being there.

The year of climatic change can be determined through scientific research in ocean sediments and tree rings. Volcanic upsurges around the terrain and changes in path directions are some of the causes of weather modifications. Some of the effects of this change were ice ages and interglacial periods when the planet was warming. Natural sources like volcanoes result in greenhouse gases such as carbon dioxide (Ryan, 2008).

The presence of the gases adds to the chilling and temperate occurrences. The earth may begin to cool due to adjustments in its orbit. More CO₂ thus dissolves in the oceans hence making the planet much cooler (Hallmann & Steinberg, 2000).

Wild forest fires and other sources of heat radiation make the earth warmer. The oceans receive less CO₂ hence gets warmer. There was a small cooling event around the 16th century caused a slight cooling of the earth. The earth experienced warming during the medieval times across different regions such as Europe. The beginning of the industrial age is however the time when the earth started experiencing continuous warming. This results from the production of greenhouse gases through industries, automobiles and manufacturing activities. Climatic change has resulted in overall heat increase.

Patterns of rainfall have changed in various regions, exemplified by more rainfall in certain regions and occasionally in others. Aquatic levels have been progressively expanding, increasing by more than ten centimeters. In the 21st century, temperatures will rise; hence the thawing of glaciers will escalate.

There would be extreme weather changes due to the increase in temperatures. The rise of sea levels would interfere with coastlines and activities on beaches. There would be increased erosion and the subsidence of land would thus considerably reduce. The effect on deserts would also be tragic. Life forms, which depend on the little precipitation, would not have

any water from streams, which would undoubtedly have dried up. Most deserts on earth are fed by glaciers.

Melting of the glaciers due to climate change will impair their water services to the deserts, which will become more arid and incapable of sustaining life. They will become hotter and much drier. The soil becomes further degraded through wearing away and compaction (Hallmann & Steinberg, 2000).

Extreme desertification will lead to more migration and end up overcrowding some areas.

There would be further wearing down of the ice resulting in more intense liquefaction. An estimated 1/3 of all glaciers will disappear in less than 100 years. The distribution of river flow and water supply would decrease thus impacting agriculture and production of electricity.

Hydrological changes would change navigation systems of rivers, which may provide benefits for shipping industries, which could previously not navigate some areas. Life forms on earth would be threatened if climatic changes exaggerate. Unfortunately, these effects will not be equally distributed across the earth.

Some regions will be more adversely affected while some will experience the benefits of the weather changes. Some of its impacts will be irreversible depending on their rate and magnitude.

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