Scientists predict that during global warming, the northern regions of the Northern Hemisphere will heat up more than other areas of the planet, northern and mountain glaciers will shrink, and less ice will float on northern oceans. Regions that now experience light winter snows may receive no snow at all. In temperate mountains, snowlines will be higher and snow packs will melt earlier. Growing seasons will be longer in some areas. Winter and night time temperatures will tend to raise more than summer and daytime ones.

The warmed world will be generally more humid as a result of more water evaporating from the oceans. Scientists are not sure whether a more humid atmosphere will encourage or discourage further warming. On the one hand, water vapour is a greenhouse gas, and its increased presence should add to the insulating effect. On the other hand, more vapour in the atmosphere will produce more clouds, which reflect sunlight back into space, which should slow the warming process.

Greater humidity will increase rainfall, on average, about 1 percent for each Fahrenheit degree of warming. (Rainfall over the continents has already increased by about 1 percent in the last 100 years.) Storms are expected to be more frequent and more intense. However, water will also evaporate more rapidly from soil, causing it to dry out faster between rains. Some regions might actually become drier than before. Winds will blow harder and perhaps in different patterns. Hurricanes, which gain their force from the evaporation of water, are likely to be more severe. Against the background of warming, some very cold periods will still occur. Weather patterns are expected to be less predictable and more extreme.

The total consumption of fossil fuels is increasing by about 1 percent per year. No steps currently being taken or under serious discussion will likely prevent global warming in the near future. The challenge today is managing the probable effects while taking steps to prevent detrimental climate changes in the future. Damage can be curbed locally in various ways. Coastlines can be armoured with dikes and barriers to block encroachments of the sea. Alternatively, governments can assist coastal populations in moving to higher ground. Some countries, such as the United States, still have the chance to help plant and animal species survive by preserving habitat corridors, strips of relatively undeveloped land running north and south. Species can gradually shift their ranges along these corridors, moving toward cooler habitats.

During the last ice age, average global temperatures were only about five Celsius degrees (about nine Fahrenheit degrees) cooler than the present period. The total consumption of fossil fuels is increasing by about 1 percent per year. No steps currently being taken or under serious discussion will likely prevent global warming in the near future. The challenge today is managing the probable effects while taking steps to prevent detrimental climate changes in the future. Damage can be curbed locally in various ways. Coastlines can be armoured with dikes and barriers to block encroachments of the sea.

Alternatively, governments can assist coastal populations in moving to higher ground. Some countries, such as the United States, still have the chance to help plant and animal species survive by preserving habitat corridors, strips of relatively undeveloped land running north and south. Species can gradually shift their ranges along these corridors, moving toward cooler habitats.
There are two major approaches to slowing the build up of greenhouse gases. The first is to keep carbon dioxide out of the atmosphere by storing the gas or its carbon component somewhere else, a strategy called carbon sequestration. The second major approach is to reduce the production of greenhouse gases.