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Environmental Issues on Overfishing and Ocean Acidification

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Abstract

Prior to the Marine industrial Revolution, atmospheric concentrations of obviously takes place greenhouse gases, including water vapor or moisture gaseous contains carbon dioxide, methane, nitrous oxide, and ozone, had been relatively stable for years. Therefore, the net incoming solar radiation at the top of the aerosphere was roughly stabilized by net outgoing infrared radiation. Although, with the advent of fossil fuel-burning plants to reinforce industry, automobiles, and the energy demands of modern consumers, as well as the substantial growth of other human activities including agricultural manufacturing areas, "humans began to interfere seriously in the composition of the atmosphere," One of the researchers experiment tells by emitting large amounts of additional greenhouse gases. The human-driven build-up of greenhouse gases in the atmosphere has tested in "radiative forcing." That is, increased levels of greenhouse vapour amounts result in greater absorption of outgoing infrared radiation and ultimately an increase in temperatures when a portion of this radiationis re-radiated to the Earth's surface.

Keywords: Shoreline; Coastal Populations; Marine; Seaward; Sea Area

Discussion

The most dominant factor anthropogenic greenhouse gas over the past two centuries has been carbon dioxide, which is primarily attributable to fossil fuel combustion, cement production, and land-use change. Atmospheric concentrations of carbon dioxide were approximately more than 200 parts per million at the start of the Industrial Revolution in the 1700s.

It took a century and a half to reach atmospheric concentrations of 415 ppm. The trend accelerated in the 21st century stage, reaching 370 ppm by the 1991s, and 374 ppm currently, which distance atmospheric levels for at least the last 660,000 year and most likely the past 22 million years.

While chemically stable in the atmosphere, carbon dioxide in the ocean is chemically active in every time. As carbon dioxide dissolves in seawater levels, it reacts with water molecules to form a weak acid, carbonic acid, the same weak acid found in carbonated drinks. Like all acids, carbonic acid then secretes hydrogen ions (H+) into solution-leaving both bicarbonate ions and to a lesser range, carbonate ions in the solution. The acidity of ocean waters is determined by the concentration of hydrogen ions, which is sustained on the pH scale. The higher the level of hydrogen ions in a solution, the lower the pH level.

Conclusion

The increase of atmospheric concentrations of carbon dioxide since the appearance of the Industrial Revolution has decreased exterior pH values by 0.3 units. While this may not sound like a considerable change, the pH scale is logarithmic. Thus, a 0.5-unit change in pH transforms into a 50% increase in hydrogen ions. The pH of the world's oceans present stands at approximately 8.7, with a difference of about ± 0.5 units because of local, regional, and seasonal individuals. The pH unit change over the past 175 years is probably the highly seen over the past several million years. While increases in marine acidification have been substantial to date, far more dramatic changes are likely to occur during this century and beyond as a substantial portion of burgeoning levels of anthropogenic carbon dioxide emissions enter the world's oceans.

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