

Fossil Fuel Consumption Trend and Global Warming Scenario: Energy Overview

ABSTRACT

Global warming is directly related to the consumption of fossil fuel and corresponding CO₂ emission in the atmosphere. We have analyzed available data from various sources for energy consumptions, CO₂ emissions, and Earth's average atmospheric temperature during the period 1970 to 2018. We also analyzed the projected energy consumption data during 2018 to 2050. It is found that human industrial activities between 1970 and 2018 have consumed 385 Gtoe of fossil fuel and emitted 1143 Gt of CO₂ into the Earth's atmosphere. As a result, the Earth's average atmospheric temperature has increased 0.90° between 1970 and 2018. It is found that the projected world total fossil fuel consumption during 2018 to 2050 is 378 Gtoe. We estimate that this 378 Gtoe fossil fuel consumption emits 1122 Gt of CO₂ into the Earth's atmosphere resulting in about another 1 °C increase in the Earth's average atmospheric temperature. We suggest that the global warming is advancing more rapidly, and International communities, scientists and engineers must take appropriate rapid action to save the Earth from devastating consequences.