Effect of Seaweed on CO2 Ratio from the Effluence of Power Plants in Qatar

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Given the steady increase in CO2 emissions resulting from the combustion of biofuels in the energy plants in power plants in Qatar, it was thought necessary to find a way to reduce the CO2 emission ratio by photosynthesis and thus reduce the CO2 adverse impact on the environment in Qatar. For this purpose, we seek to investigate new and friendly ways to use local marine algae and seaweed to reduce the CO2 emission to the atmosphere. The study specifically aims at using algae and seaweed to effectively reduce the CO2 emissions from power plants in a practical manner. There are statistically significant differences between the time of fall of light on the green algae and the percentage of oxygen ratio resulting from the photosynthesis by algae in the emissions of the power plants in Al Wakra according to the small scale model prepared by the researchers. The procedures used were the following: An experimental measurement using a simulated model for the power plant, and collecting data of the measurements of CO2 ratio and oxygen before and after the use of algae. That showed the following results; average ratio of CO2 before combustion of fuel is 257,650 ppm, and its average after fuel combustion is 264,399 ppm. After using the algae within the model, the average ratio was 244,298 ppm and the value of correlation coefficient was 0.973329 that means it is a directly proportional between dissolved oxygen and time of exposure to light.

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