Climate Management thru Ocean Nourishment Ian S F Jones Ocean Technology Group University of Sydney

Abstract

Ocean Nourishment is the concept of providing additional nutrients to the desert regions of the ocean to sequester atmospheric carbon dioxide and to increase the sustainable fish catch. The provision of such nutrients on a large scale can make a deep impact on the concentration of Greenhouse gases collecting in the atmosphere and through such changes in the radiative forcing, be a tool to manage the climate.

The economics of Ocean Nourishment are presented and the sequestration time is shown to be long compared with techniques such as mid depth direct injection of carbon dioxide. The relative virtues of different nutrients such as nitrogen or iron are discussed.

Climate management is a form of geoengineering and has its opponents. These opponents tend to discount the need for increased food production in the coming years, both for the present 800 million malnourished and for the increased population. Large scale Ocean Nourishment promises increased fish stocks as a source low cost protein.