Climate Change 1995

Impacts, Adaptations and Mitigation of Climate Change: Scientific — Technical Analysis

Contribution of Working Group II to the Second Assessment Report of the Intergovernmental Panel on Climate Change

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CLIMATE Change 1995 is a scientific assessment that was generated by more than 1 000 contributors from over 50 nations. It was jointly co-ordinated through two international agencies; the World Meteorological Organization and the United Nations Environment Programme. The assessment was completed by the Intergovernmental Panel on Climate Change (IPCC) with a primary aim of reviewing the current state of knowledge concerning the impacts of climate change on physical and ecological systems, human health, and socio-economic factors. The second aim was to review the available information on the technical and economic feasibility of the potential mitigation and adaptation strategies.

The entire assessment is produced under the ultimate objective of the United Nations Framework Convention on Climate Change which is;

"... a stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate change. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable the economic development to proceed in a sustainable manner."

Part I of the report is divided into two sections with the first section providing an in-depth introduction into the ecosystem components that include; climatic driving forces, soil processes and properties, and ecological processes. The second section provides an excellent background into the relationships between the ecological processes and energy use and contains information on areas such as the global energy systems, energy efficiency, energy use, carbon dioxide emissions and world-wide energy resources.

Part II of the assessment provides the reader with a current review of the available information in regards to current climatic effect on ecosystems and adaptation options available to these ecosystems. Primarily it provides information on the effect of climate change on the major vegetative ecosystems throughout the World, the oceans and associated island structures, and finally on systems that have anthropogenic values such as agriculture, water resources management, fisheries, forestry, financial services, and human population health.

Part III of the assessment presents a suite of options for decreasing climate change. Primarily it presents information on the reduction of greenhouse gas emissions from energy production through the use of more efficient conversion processes, using alternate power sources such as renewable energy sources, and also the use of nuclear energy. This section is completed with the presentation of information on alternate energy systems for the world in the form of low carbon dioxide emitting energy systems, and concludes with a chapter on implementation issues for such systems.

The final section of the report provides an outline to the methods used for the assessment of climate change impacts and adaptations, and the methods for assessing the mitigation options. There is an inventory of the technologies available, methods with which to implement these technologies, and practices for using these technologies.

Overall, I found the bulk of the report to be the same doom and gloom many similar reports have already presented, and it was not until the mitigation options section that I found any grounds for optimism.

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