



## The Energy Problem

The root cause of world energy problems is growing world population and energy consumption per capita.

World population is presently slightly over 6 billion and expected to grow to at least 8-9 billion, and possibly to 12 billion, by the end of the 21st century. It would reach 12 billion by the middle of the 21st century if the present 1.5% per year growth rate were to continue. World economic growth and global demand for energy, the

essential engine of economic growth, are expected to grow even faster during the next few decades - by 3.3 percent a year, corresponding to a doubling time of 21 years.

How many people can the earth support? Most experts estimate the limit for long-term sustainability to be between 4 and 16 billion.

The central question addressed in this book is: **How can the world meet its energy needs during the 21<sup>st</sup> century without doing intolerable and irreparable damage to the environment?**