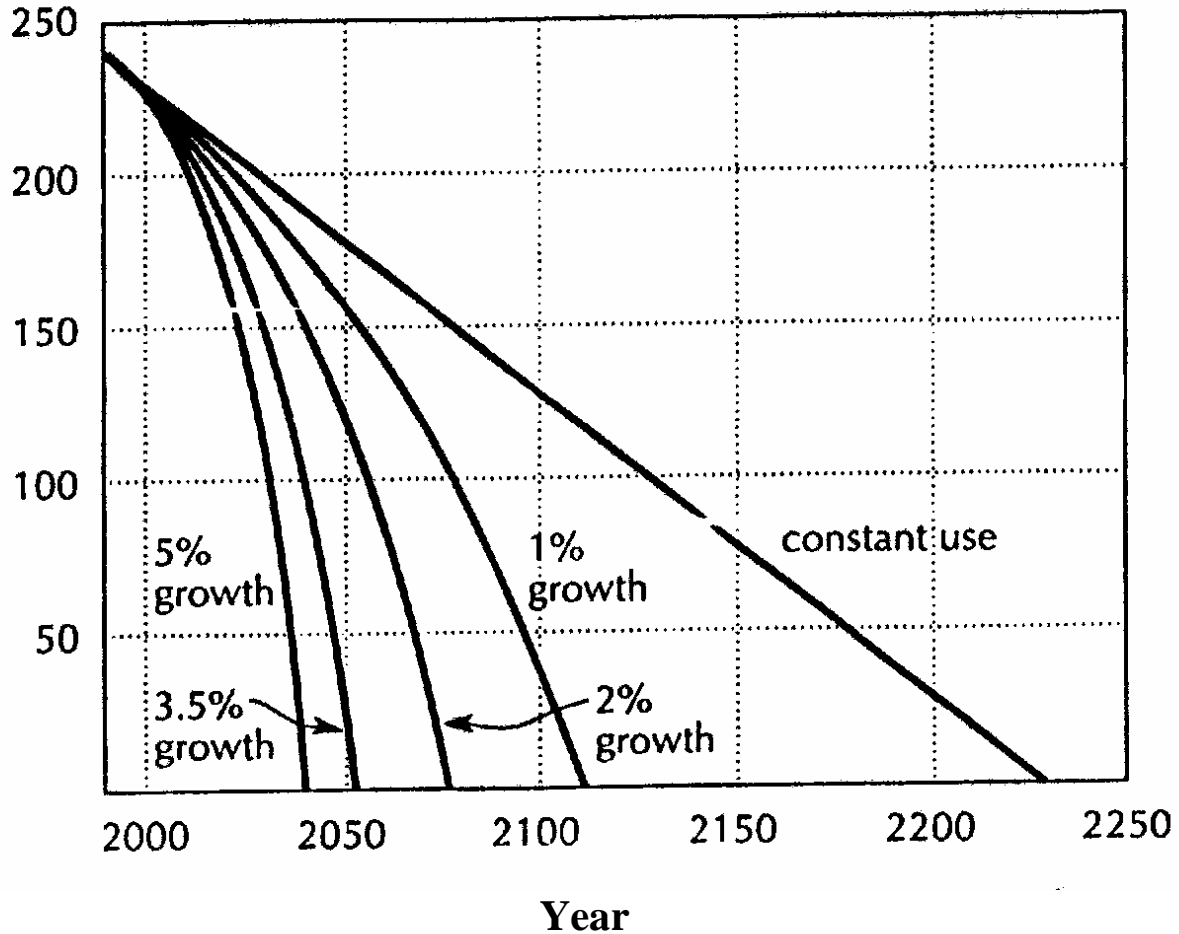


DEPLETION TIME OF A NON-RENEWABLE RESOURCE

In this example, we start in 1990 with 240 units of a non-renewable resource, such as coal or natural gas, and a consumption rate of one unit per year. The top curve shows the remaining reserves vs. time if the use rate remains constant, for which case the reserve



lasts for 240 years – until year 2230. The other curves show the life span of the reserves for various rates of growth in use. For a use growth rate of 1% per year, the life span drops to 120 years (until year 2110), and for a growth in use of 3.5% per year the life span drops to 50 years (until year 2040).

In reality, the remaining reserves would start out following these curves when the resource is abundant but then level off as the resource became scarce and prices began to rise; i.e., the rate of growth of consumption would not remain constant until the remaining reserves dropped all the way to zero. The curves would level off as the resource became more and more scarce and expensive and consumers managed either to do without it or to find substitutes.