

Klaus S. Lackner and Jeffrey D. Sachs  
“A Robust Strategy for Sustainable Energy”  
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The known energy resource base is more than sufficient to provide a growing world population with energy on the scale to which the industrial countries have grown accustomed and to which the developing countries aspire. Environmental constraints exist but have promising solutions, provided farsighted policies are adopted in timely fashion. We illustrate the scale of the problem using a simple numerical scenario of world energy demand over the next century and calculating the implied increase in carbon emissions and atmospheric carbon concentrations. We conclude that action is needed soon to keep carbon concentrations below 500 parts per million as of 2050 and that the cost of mitigation will be less than 1 percent of gross world product as of 2050, assuming today's promising technologies prove successful, but also that additional novel mitigation technologies will need to be developed and adopted after 2050.

JEL codes: N50, O13, Q42, Q52