

Study and Discussion Questions for Reading Assignments from the
Intergovernmental Panel on Climate Change, Third Assessment Report

Part 1. The Scientific Basis: Summary for Policymakers

A. Examine the 1000-year records of global temperature and atmospheric CO₂ concentration that are shown in figures 1 and 2, respectively. What features of these graphs suggest a causal relationship between CO₂ and temperature? What features are not explained?

B. Now examine 100-year record of the actual and modeled global temperatures shown in figure 4. What is meant by modeled data? What point is being made through this application of modeling? Does, in your opinion, the modeling strengthen the argument for a causal connection?

C. Do you find the use of "scenarios" (as on p. 18) a helpful way to think about the future?

D. According to Figure 5, what must we do to return CO₂ to its pre-industrial level of 280 ppm by the year 2100?

Part 2. Impacts, Adaptation and Vulnerability: Summary for Policymakers

A. Why are so few impacts given for South America, Africa and Asia in Figure SPM-1, and why are they limited to studies of glaciers?

B. Link each of the "adverse impacts" listed at the top-right of page 5 to climatic changes. Rate your confidence in the reliability of each linkage.

C. Contrast the "Adaptive Capacity, Vulnerability and Key Concerns" (as given in Table SPM-2) for Asia and Europe.

D. Should something as unessential as tourism even be discussed in a report like this?

Part 3. Mitigation: Summary for Policymakers

A. What is meant by "mitigation". Is there more than one way to achieve mitigation? If so, what are they?

B. Box SPM.1 describes future scenarios. Do you find them helpful in thinking about the future? Would mitigation strategies be different in the alternate futures?

C. Why is the rates of population growth and economic growth so important in an analysis of mitigation?

D. Explain what's going on in Figure SPM.1. What does a large gap between the grey band and the colored bands mean? Why does the lower-middle scenario have no gap?