

World Resources Institute

The Costs of Climate Protection

The United States and other nations that have signed the Global Climate Convention are negotiating commitments to stabilize and then reduce emissions of greenhouse gases. Before the United States commits itself to specific restrictions on carbon dioxide emissions and timetables for implementation, it is essential that the economic consequences be thoroughly understood.

A new World Resources Institute study, **The Costs of Climate Protection: A Guide for the Perplexed,** explains why different economic models reach different conclusions—the costs of reducing greenhouse gas emissions depend almost entirely on the model's assumptions. WRI Vice President and Senior Economist Robert Repetto and his colleague, WRI Research Analyst Duncan Austin, have identified the key assumptions used in economic models that account for over 80 percent of the variation in predicted economic impacts. Repetto and Austin reveal the important questions to ask about the assumptions underlying the predictions:

1. Does the economic model assume non-fossil energy alternatives will become available in the future at a competitive price?

2. Does the model assume that firms and consumers will reallocate their expenditures efficiently as energy prices increase?

3. Does the model assume that nations will take advantage of joint implementation?

4. Does the model assume that revenues raised from energy taxes or auctioned-off CO_2 permits will be used to reduce taxes on labor and capital?

5. Does the model assume that reductions in fossil fuel consumption will decrease air pollution damages?

6. Does the model assume that reductions in fossil fuel consumption will avert environmental damages associated with climate change?

7. To what extent does the model assume substitution among energy sources, energy technologies, products and production methods is possible?

"When you hear a prediction about the economic impact of climate protection policies, remember to ask what the underlying assumptions are," Robert Repetto emphasizes.

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