

The Economics of Climate Adaptation

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This talk will begin with a brief discussion of the economic theory behind efficient adaptation. The key to adaptation is that the benefit of each action must outweigh the cost. Such notions as climate proofing will inevitably lead to ineffective adaptation responses. Exactly what adaptation each local area must do in response to climate change depends upon the local impacts they face. This talk briefly reviews the economic impacts of climate change across the globe and notes that the bulk of damages will fall on the low latitudes whereas the high latitudes may see substantial benefits. Because effects vary so much across space, some areas should focus adaptation on reducing damages whereas other areas should focus their adaptation on seizing benefits.

The talk then discusses efficient adaptation strategies for different regions. Appropriate adaptation responses will look like a mosaic across the landscape as each local area seeks the best fit. Although some adaptation may be anticipatory, the large uncertainties in local climate forecasting should lead to most adaptation being a response to observed changes in climate. Most adaptation must consequently wait until climate changes. However, the advantage of waiting is that the uncertainty will be resolved. Anticipatory adaptation should largely focus on planning for alternative scenarios and developing appropriate policies and institutions to support adaptation when it is needed. A great deal of adaptation will be undertaken privately by individuals and firms looking after themselves. However, there are some adaptations that involve multiple beneficiaries such as with ecosystems, pollution, coastal protection, and infectious diseases that require government action.