

Adaptation Benefits and Costs –Measurement and Policy issues

Mac Callaway

UNEP Collaborating Centre on
Energy and Environment

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Global Damages/Benefits Information

- Value is limited for existing UNFCCC – Kyoto instruments
- Important for parties to consider future burden sharing possibilities, esp. distribution of damages and benefits – both mitigation and adaptation
- Information at national and sub-national level important for planning and investment in adaptation
- The credibility of global estimates depends on the credibility of national and sub-national studies

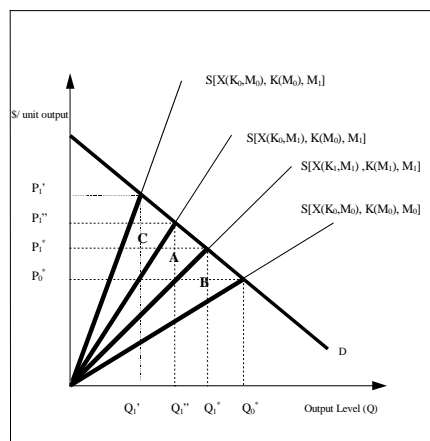
Adaptation Benefits and Costs: Some Methodological Issues

- Defining the scope of what constitutes adaptation
 - Options and projects
 - Behaviour
 - autonomous adjustments
 - Investment
- Exogenous vs. endogenous adaptation
- Linking adjustments to climate variability to adjustments to climate change
- Estimation of “no regrets” benefits and costs
- Linking planning and assessment modelling

Climate Variability and Change

- Lacking reliable information about CC,
 - Individuals are likely to adjust to climate change as if it were climate variability
 - Through short-run adjustments
- Success will depend on
 - Flexibility built into existing investments in fixed and quasi-fixed factors
 - “Overlap” between CV and CC
- Long-run adjustments:
 - How climate flexible is the existing capital stock?
 - Attitudes toward risk in making long run decisions
 - To what extent have recent climate anomalies stimulated long-run adjustments?

Partitioning Damages and Adaptation Benefits



$$Q = f(X, K, M)$$

$C + A + B =$ Maximum climate change damages

$C =$ Net benefits of partially adjusting to climate change

$A + B =$ imposed cost of climate change with partial adjustment

$A =$ Net benefits of full adjustment

$B =$ Imposed cost of climate change with full adjustment

Developing Country Issues

- Measurement and comparison of adaptation capacity and linkages to vulnerability
- Proper focus?
 - Resource management
 - Human and social capital building
 - Traditional economic development policy
- Economic development policy as a substitute for climate policy?
 - More elastic substitution possibilities – outputs and inputs
 - Increase natural resource productivity
 - Better integration of hh production into domestic markets
 - Better integration of domestic markets in international markets