

OECD workshop on benefits of climate policy, 12-13 December 2002

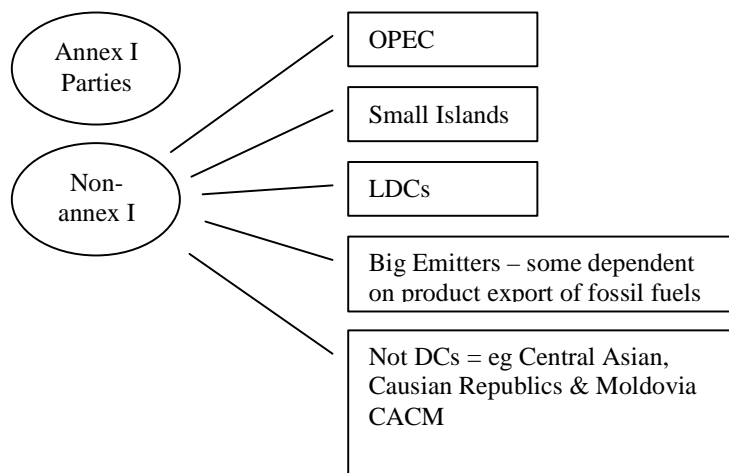
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Comments on R. Tol's paper, Distributional Impacts of Climate Change, December 2002.

1. Consistency of country groupings

Table 1 is helpful in providing monetary estimates of CC impacts over time across different regions. But for a policy-maker it is very difficult to compare the various estimates and to match these to the regions that policymakers are more used to thinking in terms of in the climate change context. The underlying models used to generate damage estimates divide up the world into regions/blocs which don't sit well with or are inconsistent with the ones used by CC policy-makers.

Underpinning the policy framework established by the FCCC/KP is a division of the world into different regions and political categorization of countries. The most important cleavage is Annex I and non-Annex I. Both these groups are differentiated (see below). Annex I covers diversity of OECD members plus economies in transition as well as diversity of EU & Accession members plus Southern, Northern & Eastern Europe. The term Non Annex I covers a yet greater diversity of political and economic groupings. All these groups cannot "see" the data relevant to them in Table 1 without first trying to disaggregate the data and re-build it so it makes sense to their regional/political grouping.



It would be useful if modellers and policy-relevant researchers constructed the models and presented the end data in ways in which policy-makers understand their political and economic world. It would be useful to also use per capita income figures to differentiate within the different political/economic blocs as many of the groupings have wide variations.

2. Special features and circumstances

It would also be useful in discussions of climate change impacts if researcher took account of the circumstance countries *themselves have articulated* to be relevant to their capacity to adapt to the adverse impacts of climate change and/or impact of implementation of response measures. For example, Article 4.8 FCCC gives a categorization of countries with special geographic or economic features meriting particular consideration in terms of further actions the COP might take on relation to adaptation/response measures.

Article 4.8, FCCC states:

In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:

- (a) Small island countries;
- (b) Countries with low-lying coastal areas;
- (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;
- (d) Countries with areas prone to natural disasters;
- (e) Countries with areas liable to drought and desertification;
- (f) Countries with areas of high urban atmospheric pollution;
- (g) Countries with areas with fragile ecosystems, including mountainous ecosystems;
- (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and
- (i) Land-locked and transit countries.

Therefore need to provide some method for bringing together the different numeraire/metrics relevant for these countries or groups of countries and focusing, in particular, on LDCs within these categories as LDCs are a special category recognized by the Convention (Article 4.9).

3. Distributional Issues

The paper is useful for looking at *global* impact estimate but there is a pressing need to go beyond this level of aggregation and to focus instead on country level analysis of *distribution* of impacts to sectors and *groups* within these. Aggregation at the global levels masks significant equity/distributional issues that will arise within countries and within particular groups within those countries.

E.g. – Agriculture

- effect on subsistence farmers (at present the bulk of rural/poor and subsistence farmers are left out of GDP calculations so using GDP based data already excludes highlighting CC impacts on such highly vulnerable groups)
- large-scale commercial agriculture might benefit but this is not clear in aggregate picture

Need a methodology for integrating national and sub-national distributional aspects into analysis to move into a the next phase of research as policy makers will have to turn their attention to crafting policies (mitigation and adaptation) which create winners/losers. Much of the current literature has only paid attention to formal actors (companies) in particular sectors (industry, energy) and not gone onto examining stakeholder analysis of the wide range of interests actually likely to be affected.

4. Temporal Considerations

More focus on temporal equity issues is needed in a paper of this sort because it deals with long time frames. Short, medium & long term consequences of impacts need to be clearly distinguished and not simply aggregated. Future papers should make clear what impacts are likely and with what confidence and by when, e.g 2025, 2050, 2075, 2100. Aggregation within too long a timeframe makes invisible the real short term impacts that will be felt by the most vulnerable countries or groups within countries.

For example: We are already committed as a result of warming to date to certain levels of sea level rise and this will affect over the next 50 years, countries in different ways. Adaptation needs of some may be far

more urgent than less likely impact others might experience in the future. Aggregating information on a global or even regional scale masks the necessity of adaptation action in the short to mid-term. Presenting information on impacts only over a long time-frame (e.g. 100 years) compounds this.

5. Underestimates

In a number of places Tol's paper states the estimates are underestimates eg page 3 + 61 says these figures exclude impacts. It would be useful to say by how much and what confidence even if these are ball park?

6. Policy relevance of OECD project on CC benefits

This project is very useful for framing ongoing work under FCCC on balance of efforts on mitigation/adaptation activities. Looking at climate benefits also has a useful role in focusing attention on emission pathways. Unlike focusing on GHG concentration limits, focusing on temperature change and its consequence in terms of sea level rise & other impacts, does have a critical bearing on emission pathways because impacts are directly related to timing of action.

Methodologies to measure adaptive capacity are needed. In the paper right now there is an assumption that making everyone richer is sufficient to increase their adaptation capabilities (see pg 6). Is that correct? What kinds of institutions are needed? What kinds of policy-processes are needed to articulate the decision-making framework? Which groups need to be involved and at what level? Do we need citizen's juries to help make policy-making more responsive to public perceptions of risk?

One shortcoming of the project is there is a lack of emphasis on procedural equity issues. Distribution is fair if it is fairly decided! So need to build in how we look at policy-making frameworks. This is where development aspects are crucial and all our insights from development studies state if you don't involve those likely to be impacted you are unlikely to succeed in meeting their concerns.