



Workshop: Understanding the impacts of climate change on growth and development

20-21 June 2016

Potsdam Institute for Climate Impact Research, Potsdam, Germany

Background & Aims:

The improvement of the representation of climate change impacts in economic models, including integrated assessment models and CGEs, is one of the largest challenges in integrated assessment research right now. This gap became obvious once more in the IPCC 5th Assessment Report and needs to be addressed with regard to future climate policy assessments. Aggregate damage functions are a constant source of critique and by design miss important dynamics, for example effects on long-term economic growth. A new approach needs both, a sound conceptual basis and accompanying advances on the quantification of impacts in terms of relevant economic indicators.

With this workshop we would like to bring together leading experts from both the empirical and the economic modeling communities to address the following questions:

- (i) What is the current status quo of research regarding growth impacts of climate change?
- (ii) What are shortcomings in conceptual understanding, empirical data and modeling tools?
- (iii) What achievements would constitute a break-through in this field in the next 3 years?
- (iv) How can the different scientific communities improve their interactions to move to the next level of understanding climate change and climate policy impacts on economic growth?

The workshop is intended to make an essential contribution to outline a research framework towards the next generation of economic climate damage estimates. The workshop is closely linked to the newly launched PIK-ifo project “Economic growth impacts of climate change (ENGAGE)”.

Location:

The workshop takes place in the building A31 at PIK, in the Great Cupola. Coffee breaks and lunches will be served in the same building, in room 0.16. The workshop dinner will be held at the restaurant “Schmiede 9” in Potsdam (Am Neuen Markt 9a/b, 14467 Potsdam).



Agenda:
Monday, 20 June 2016

Introduction & Keynote		Chair
9:00 – 9:30	Ottmar Edenhofer, Elmar Kriegler (PIK): <i>Welcome, introduction</i>	Hermann Lotze-Campen
9:30 – 10:00	Ian Sue Wing (Boston University): <i>Integrated assessment of the impacts of climate change: Reflections and modest proposals for linking empirical approaches and IAMs</i>	
Thematic block I: Empirical analysis of economic growth impacts of climate change		
10:00 – 10:45	Marshall Burke (Stanford): <i>Recent empirical evidence on climate damages</i>	Hermann Lotze-Campen
10:45 – 11:05	Coffee break (room 0.16)	
11:05 – 11:50	Kyle Meng (UC Santa Barbara): <i>Challenges with extrapolating historical economic impacts of the climate into the future</i>	Jasmin Gröschl
11:50 – 12:35	Gabriel Felbermayr (ifo): <i>ifo GAME Database of natural hazards</i>	
12:35 – 13:20	Eric Strobl (Ecole Polytechnique): <i>The dangers of moving from short to long term and from local to aggregate in assessing the economic impact of extreme climate events</i>	
13:20 – 14:30	Group picture, lunch (room 0.16)	
14:30 – 15:15	Tobias Geiger (PIK): <i>Deriving empirically based damage functions for integrated assessment models</i>	Katja Frieler
15:15 – 16:00	Stéphane Hallegatte (Worldbank): <i>Shock Waves – Managing the impacts of climate change on poverty</i>	
16:00 – 16:10	Conclusion thematic block I	
16:10 – 16:30	Coffee break (room 0.16)	
Thematic block II: (Future) Modeling of economic growth impacts of climate change		
16:30 – 17:15	Rob Dellink (OECD): <i>The economic consequences of climate change</i>	Franziska Piontek
17:15 – 18:15	Per Krusell (Stockholm University): <i>Climate change around the world</i>	Piontek
19:30	Dinner (Restaurant Schmiede 9)	



Tuesday, June 21 2016

Continuation of thematic block II: (Future) Modeling of economic growth impacts of climate change		
8:30 – 9:15	Dominique van der Mensbrugghe (Purdue/GTAP): <i>Climate change impacts on the production factor land and implications for growth</i>	Ottmar Edenhofer
9:15 – 10:00	Matthias Kalkuhl (MCC): <i>Knowing the damages is not enough: The general equilibrium impacts of climate change</i>	
10:00 – 10:45	Franziska Piontek (PIK): <i>Comparative analysis of climate change impact channels on economic growth</i>	
10:45 – 11:05 Coffee break (room 0.16)		
Concluding discussion: Practical steps towards a new research agenda		
11:05 – 12:30	Panel discussion with Valentina Bosetti (FEEM), Armon Rezai (IIASA & WU), Peter Höpfe (Munich Re), Ottmar Edenhofer (PIK)	Gunter Stephan
12:30 – 13:00	Elmar Kriegler (PIK): Wrap up	
13:00 – 14:00 Lunch (room 0.16)		