ISIMIP
Inter-Sectoral Impact Model Intercomparison Project

Cross-sectoral workshop

22-24 June, 2016

Potsdam Institute for Climate Impact Research (PIK), Germany

	Morning		Afternoon		Evening
WED 22 June	**Joint session on economic costs of climate-change impacts** with participants of another workshop on climate change impacts and economic growth, incl. Keynotes from IPCC WGII & WGIII representatives 9:00-12:45 (with break)		**Sector reports & ISIMIP2a papers** Focus on ISI-MIP2a results as basis for model improvements 14:15-17:00 (with break)	**Guided Poster session & welcome reception** 17:20-19:00	
THUR 23 June	**Sector reports and ISIMIP2a papers cont'd** 9:00-10:50	**Impacts of 1.5°C** Presentation of suggested ISI-MIP simulations & teasers for proposed studies/papers 11:20-13:00	**ISIMIP runs for IPCC 1.5°C report** Scientific motivation for scenario design, presentation of land-use & climate data 14:30-16:10	**Studies arising from 1.5°C simulations** 16:40-18:10	**Workshop dinner** 18:30-20:30
FRI 24 June	**Sector-specific meetings** 9:00-12:30		**ISIMIP3 & issues arising from sector-specific meetings** Presentation of JPI proposals 13:30-15:00	**Strategy Group meeting** 15:30-17:30	

20-21 June, 2016: FISH-MIP Side Meeting

Please note, all plenary sessions will take place in the conference room (lower ground level) of the new PIK building, **A56 (see map on back of program)**.

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Wednesday, 22 June. Day 1

Joint session on economic costs of climate-change impacts
Chair: Franziska Piontek

Without progress in the economic evaluation of the impacts of climate change, the requested IPCC Special Report "on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways" may lead into the dead end that limiting global warming to 1.5°C is necessary from an impacts point of view but too expensive from a mitigation point of view.

In this session we want to discuss options to overcome this impasse. What does it mean if we want to measure impacts on the same scale as mitigation options, i.e. in terms of costs? Are the costs of climate change underestimated because the current assessments do not account for their long terms effects on economic growth? How can we overcome the outdated damage functions?

It needs a strong joint effort of impact scientists and economists, of IPCC Working Groups II and III, to close the gaps starkly displayed in the 5th Assessment Report. This session will bring together impact modelers from the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP) as well as economists participating in a workshop on the climate change impacts on economic growth taking place right before the ISIMIP workshop, to discuss useful interactions between these communities.

As ISIMIP moves into its next phases, its protocol design can be developed with targeted output for economic models in mind. The session aims to find out what such output would have to look like, and to discuss potential collaborations for providing useful input to the policy process, in particular with respect to the likely upcoming IPCC Special Report on the 1.5°C target as well as the 6th Assessment Report.
The session will focus on three main questions:

1. How can output of impact models, in particular of the ISIMIP project, be used as input for economic models?
2. How can the process understanding from the impact modelling community be integrated in empirical estimates of potential (long-term effects) on the economy?
3. How can we establish fruitful collaborative schemes between research communities?

9:00	Welcome	
9:05	Keynote I: What are the breakthroughs needed by the impact community in the next 2-3 years with respect to a quantification of socio-economic impacts?	Hans-Otto Pörtner, Co-Chair of IPCC Working Group II
9:45	Keynote II: What can an integrated assessment of impacts, mitigation and adaptation look like?	Hermann Lotze-Campen, PIK
10:25-10:45 Fruit, tea & coffee break		
10:45	Impacts in an economic model	D. van der Mensbrugghe, Purdue/GTAP
11:15	New predictors for empirical relations	Marshall Burke, Stanford University
11:45	Structured discussion and conclusions	
12:45 Lunch		

Welcome from the coordination team, sector reports and a look at ISIMIP2a studies I
Chair: Katja Frieler

14:15	**Report from ISIMIP Coordination Team** • Welcome & workshop goals • ISIMIP Mission & Implementation Document	Katja Frieler Lila Warszawski
14:30	**Climate Data** • Evaluation of Ensemble Forcing Data and Uncertainty Propagation	Hyungjun Kim
	Biodiversity • Sector report	Thomas Hickler
14:55	**Fisheries** • Sector report • "Uncertainties of global marine fisheries catches in the 21st century" • "Technological progress was the main driver of changes in ocean fish harvests over the 20th century"	Heike Lotze William Cheung Eric Galbraith
15:35	**Coastal Infrastructure** • Sector report	Daniel Lincke
15:50-16:10 Break		
16:10	**Permafrost** • Sector report	Eleanor Burke
16:20	**Agriculture** • Sector report	Delphine Deryng
16:30	**Health** • Sector report • Climate change impacts on health and well-being estimated with ISIMIP data • Presentation of consortium for JPI ERA4CS call	Kristie Ebi Tord Kjellstrom Joacim Rocklöv
17:05	**Agro-economics** • Integration of multiple biophysical impacts in agro-economic models	Hermann Lotze-Campen

2 minute lightening talks, guided poster session and welcome reception
17:30-19:00
Chair: Christopher Reyer
(authors of titles in grey are not present)

1. "Primary productivity in the ISIMIP2a biomes simulations" Akihito Ito
2. "Effects of heat on crop yields" Bernhard Schauberger
3. "Representation of droughts under different forcing data sets" Aristeidis Koutroulis
4. "Benchmarking the ISI-MIP2 biome models against observed long-term net carbon fluxes" Jinfeng Chang
5. "Changes in fish abundance and distribution under climate change" Jose Antonio Fernandes Salvador
6. "Temporal and spatial analyses of terrestrial ecosystems gross primary productivity (GPP)" Ghassem Asrar
7. "Long-term geophysical monitoring of different industrial units in Western Yakutia" Svet Milanovskiy
8. "Multi-sectoral model intercomparison study of climate change impacts on monthly spatially- distributed evapotranspiration simulations" Ann van Griensven
9. "Intercomparison of regulated river discharge across multiple global hydrological models under multiple forcings along two major rivers in the United States" Yoshimitsu Masaki (to be presented by Naota Hanasaki)
10. "The groundwater scheme in the Distributed Biosphere-Hydrological (DBH) model" Zhongwei Huang
11. "Next challenges for ISIMIP" Luis Samaniego
12. "Application of the land surface model SWAP for simulating river runoff for some ISI-MIP river basins" Olga Nasonova
13. "Modelling the water balance components of the river basins located in different regions of the world" Yeugeniy Gusev

14. “ECOMAG model application within the ISI-MIP framework” Inna Krylenko
15. “Land evapotranspiration (ET) in the global hydrological cycle” Richard Wartenburger
16. TBA Yusuke Sato

Thursday, 23 June. Day 2

Sector reports and a look at ISIMIP2a studies II

Chair: Jacob Schewe

9:00	Welcome	ISI-MIP Coordination Team
9:05	**Biomes/Forests** • Sector report • "Response to droughts and heat waves of the productivity of natural and agricultural ecosystems in Europe within ISI-MIP2 historical simulations" • "The sensitivity of terrestrial primary productivity and soil respiration to changes in precipitation and temperature using ISIMIP2a simulations"	Christopher Reyer Louis Francois Hanqin Tian
9:45	**Water (regional)** • Sector report • "Cross-scale review of the water-model results from the ISIMIP2a simulations"	Valentina Krysanova Fred Hattermann
10:10	**Water (global)** • Sector report – Simon gosling • The first climate change impact assessment on river runoff that utilises an ensemble of global hydrological models • Pressure on fresh water resources from socioeconomic developments	Simon Gosling Simon Gosling Ted Veldkamp
10:50-11:30 Fruit, tea & coffee break		

Impacts of 1.5°C warming

Chair: Katja Frieler

11:30	Differential climate impacts for policy-relevant limits to global warming: the case of 1.5 °C and 2 °C	Carl Schleussner
11:40	Long-term effects of 1.5°C warming • Permafrost • Fisheries • Global biomes	Kirsten Thonicke Heike Lotze Sebastian Ostberg
12:05	Instantaneous impacts of global warming • Crop yields • Floods • Heat waves	Sebastian Ostberg Fang Zhao Veronika Huber
12:35	Short-term and persistent impacts on socio-economic indicators	Tobias Geiger
12:50	Discussion	
13:00-14:30 Lunch		

ISIMIP contribution to IPCC 1.5°C special report

Chair: Christopher Reyer

14:30	Half a degree Additional warming, Projections, Prognosis and Impacts - HappiMIP	Daniel Mitchell
14:55	Presentation of proposed scenario design followed by discussion	Katja Frieler
15:25	The climate data • What does 1.5°C look like? • GCM selection and characteristics • Bias correction	Stefan Lange

15:40	Future land-use patterns (followed by discussion)	Miodrag Stevanovic
16:10-16:40 Fruit, tea & coffee break		

Potential studies arising from 1.5°C simulations
16:40-18:00
Chair: Veronika Huber

16:40-17:10	Impulse talks on 'innately' cross-sectoral topics • Economic costs of climate change impacts • Health • Immigration	(TBC) Anne Biewald Jacob Schewe
17:10-18:10	World Café brainstorming on potential studies using 1.5°C runs	

18:30-20:30 Workshop Dinner followed by a little something

Friday, 24 June. Day 3

Sector-specific meetings
9:00-12:30 (coffee break at 10:30am)

Biomes/Forests	A56 Europa	0.24 ground floor
Agriculture	A56 Asien	2.33 second floor
Water (regional)	A56 Konferenzsaal	
Water (global)	A56 Amerika	2.05 second floor
Fisheries	A56 Ozeanien	0.43 ground floor
Health	A56 Afrika	3.14 third floor

12:30-13:30 Lunch

ISIMIP3 & issues arising from sector-specific meetings
Chair: Jacob Schewe

13:30	Update on funding situation for modelling activities	Rolf von Kuhlmann
13:45	Report back from sector meetings & brainstorming sessions on 1.5°C studies • Biomes • Global water • Regional water • Health • Fisheries	Group representatives & sector coordinators
14:30	Presentation of JPI Consortia for ERA4CS Call • Agriculture • ISIMIP Coordination • GHG emissions • Energy • Water	Christoph Müller Lila Warszawski Christopher Reyer Franziska Piontek Fred Hattermann
14:55	Closing	Katja Frieler

ISIMIP Strategy Group Meeting
15:30-17:30

Sector	Last Name	First Name	Model	Institute
Agriculture	Deryng	Delphine	PEGASUS	University of Chicago/NASA GISS, USA
	Kamali	Bahareh	PEPIC-SUFI2	Swiss Federal Institute of Aquatic Science and Technology, Switzerland
	Morfopoulos	Catherine	JULES	University of Exeter, UK
	Porwollik	Vera	LPJmL	Potsdam Institute for Climate Impact Research (PIK), Germany
Biodiversity	Niamir	Aidin	Biodiversity	Senckenberg Biodiversity and Climate Research Centre, Germany
Biomes	Cramer	Wolfgang	LPJmL	Mediterranean Institute for Biodiversity and Ecology (IMBE), France
	François	Louis	CARAIB	University of Liège, Belgium
	Henrot	Alexandra-Jane	CARAIB	UMCCB, University of Liège, Belgium
	Hickler	Thomas	LPJ-GUESS	Senckenberg Biodiversity and Climate Research Centre (BiK-F), Germany
	Ito	Akihiko	VISIT	NIES, Japan
	Pan	Susan (Shufen)	DLEM	School of Forestry and Wildlife Sciences, Auburn University, USA
	Reyer	Christopher	4C	Potsdam Institute for Climate Impact Research (PIK), Germany
	Schaphoff	Sibyll	LPJmL	Potsdam Institute for Climate Impact Research (PIK), Germany
	Tian	Hanqin	DLEM	Auburn University, USA
	Zhao	Fang	VEGAS	Potsdam Institute for Climate Impact Research (PIK), Germany
	Ostberg	Sebastian	LPJmL	Potsdam Institute for Climate Impact Research (PIK), Germany
Economic	Lotze-Campen	Hermann	MAgPIE	Potsdam Institute for Climate Impact Research (PIK), Germany
	Mouratiadou	Ioanna	REMIND-MAgPIE	PIK, Germany
Fisheries	Barange	Manuel		Plymouth Marine Laboratory, UK
	Bopp	Laurent	APECOSM	CNRS-IPSL, France
	Buchholz	Andrea		Dalhousie University, Canada
	Cheung	William		The University of British Columbia, Canada
	Coll	Marta		IRD, Spain
	Eddy	Tyler	Ecopath with Ecosim (EwE)	Dalhousie University, Canada
	Fernandes Salvador	Jose Antonio	SS-DBEM	Plymouth Marine Laboratory, UK
	Galbraith	Eric	BOATS	ICREA, Spain
	Jennings	Simon		CEFAS and UEA, UK
	Lotze	Heike		Dalhousie University, Canada
	Oliveros-Ramos	Ricardo	OSMOSE	Universidad Peruana Cayetano Heredia, Perú
	Roy	Tilla		ECOCEANA, France
	Tittensor	Derek		Dalhousie University, Canada
Health	Ebi	Kristie		University of Washington, USA

Health	Huber	Veronika		Potsdam Institute for Climate Impact Research (PIK), Germany
	Kjellstrom	Tord	Health and Productivity of Working People	CETRI, Cyprus
Infrastructure	Burek	Peter	Lislfood	IIASA, Austria
	Lincke	Daniel	DIVA	Global Climate Forum, Germany
Permafrost	Milanovskiy	Svet	permafrost-aquafer-climate interactions	Institute of Physics of the Earth RAS, Russia
	Thonicke	Kirsten	LPJmL	Potsdam Institute for Climate Impact Research (PIK), Germany
Coordination Team	Büchner	Matthias		Potsdam Institute for Climate Impact Research (PIK), Germany
	Frieler	Katja		Potsdam Institute for Climate Impact Research (PIK), Germany
	Graefe	Peggy		Potsdam Institute for Climate Impact Research (PIK), Germany
	Lange	Stefan	bias correction	Potsdam Institute for Climate Impact Research (PIK), Germany
	Schewe	Jacob		Potsdam Institute for Climate Impact Research (PIK), Germany
	Warszawski	Lila		Potsdam Institute for Climate Impact Research (PIK), Germany
Energy supply & demand	Piontek	Franziska	Coordination Team	Potsdam Institute for Climate Impact Research (PIK), Germany
Water (global)	Gerten	Dieter	LPJmL	Potsdam Institute for Climate Impact Research (PIK), Germany
	Hanasaki	Naota	H08	National Institute for Environmental Studies, Japan
	Hemin	Sun	VIC	Nanjing University of Information Science & Technology, China
	Huang	Zhongwei	DBH	Chinese Academy of Sciences, China
	Kim	Hyungjun	MATSIRO	The University of Tokyo, Japan
	Müller-Schmied	Hannes	WaterGAP 2	Goethe-University Frankfurt, Institute of Physical Geography, Germany
	Orth	Rene	SWBM	ETH Zurich, Switzerland
	Satoh	Yusuke	MATSIRO	International Institute for Applied Systems Analysis, Austria
	Koutroulis	Aristeidis	JULES-TUC	Technical University of Crete, Greece
	Veldkamp	Ted	STREAM	VU University Amsterdam, The Netherlands
	Wada	Yoshihide	PCR-GLOBWB	IIASA, Austria
	Xiaofan	Zeng	VIC	Huazhong Unversity of Science and Technology, China
	Gosling	Simon	Mac-PDM.09	University of Nottingham, UK
Water (regional)	Buda	Su	SWIM	national climate center, China Meteorological Administration, China
	Chamorro	Alejandro	HBV, Hymod	Universität Gießen, Germany
	Chao	Gao	SWIM	Anhui Normal University, China
	Hattermann	Fred	SWIM	Potsdam Institute for Climate Impact Research (PIK), Germany

Water (regional)	Dongnan	Jian	SWAT	Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, China
	Eisner	Stephanie	WaterGAP3	Norwegian Institute of Bioeconomy Research, Norway; CESR, Kassel, Germany
	Fink	Gabriel	WaterGAP3	University of Kassel, Center for Environmental Systems Research, Germany
	Jing	Chen	HBV	Nanjing University of Information Science & Technology, China
	Jinlong	Huang	HBV	Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, China
	Kollet	Stefan	TerrSysMP, ParFlow	Research Centre Jülich, Germany
	Krylenko	Inna	ECOMAG	Water Problem Institute, Russian Federation
	Krysanova	Valentina	SWIM, HBV	Potsdam Institute for Climate Impact Research (PIK), Germany
	Kumar	Rohini	mHM	Helmholtz Centre for Environmental Research, Germany
	Nasonova	Olga	SWAP	Institute of Water Problems, Russian Academy of Sciences, Russia
	Samaniego	Luis	mHM	UFZ, Germany
	Taie Semiromi	Majid	Climate change impacts on groundwater resources	Department of Geohydraulics and Engineering Hydrology, University of Kassel, Germany
	Tong	Jiang	HBV	National climate center, China Meteorological Administration, China
	Wagner	Paul	SWAT	Freie Universität Berlin, Institute of Geographical Sciences, Remote Sensing and Geoinformatics, Germany
	Wartenburger	Richard		ETH Zurich, Switzerland
	Yanjun	Wang	SWAT	Nanjing University of Information Science and Technology, China
Guests & Invited Speakers	Burke	Marshall	Invited Speaker	Stanford University, USA
	Farrell	Niall		Environmental Protection Agency, Ireland
	Geiger	Tobias	Invited Speaker	Potsdam Institute for Climate Impact Research (PIK), Germany
	Glanemann	Nicole		Potsdam Institute for Climate Impact Research (PIK), Germany
	Mitchell	Daniel	HappiMIP	Oxford University, UK
	Narezo	Daniela		Potsdam Institute for Climate Impact Research (PIK), Germany
	Pörtner	Hans-Otto	Invited Speaker	Chair, IPCC Working Group II
	Schleussner	Carl-Friedrich	Invited Speaker	Climate Analytics, Germany
	Stevanovic	Miodrag	Invited Speaker	Potsdam Institute for Climate Impact Research (PIK), Germany
	van der Mensbrugghe	Dominique	Invited Speaker	Purdue University, USA
	Willner	Sven		Potsdam Institute for Climate Impact Research (PIK), Germany
	von Kuhlmann	Rolf		German Aerospace Centre (DLR), Germany